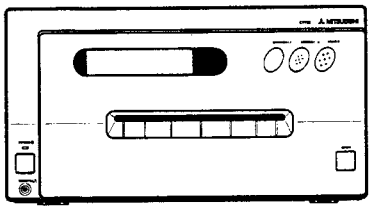
MITSUBISHI

COLOUR VIDEO COPY PROCESSOR

MODEL

CP700E

OPERATION MANUAL



THIS OPERATION MANUAL IS IMPORTANT TO YOU.
PLEASE READ IT BEFORE USING YOUR COLOUR VIDEO COPY PROCESSOR.

COLOUR VIDEO COPY PROCESSOR

This video copy processor complies with the requirements of the EC Directive 89/336/EEC.
The electro-magnetic susceptibility has been chosen at a level that gains proper operation in residential areas, on business and light industrial premises and on small-scale enterprises, inside as well as outside of the buildings. All places of operation are characterised by their connection to the public low voltage power supply system.

1. Contents

■ Contents

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■ Accessory

- Operation manual (1)
- Remote control (1)
- Ink-cassette (1)
- Power cord (1)
- Spacer (4)
- Lithium battery (CR2025) (1)
- Installing the paper and ink sheet (1)

2. Precautions

In the interest of safety, please observe the following precautions:

POWER REQUIREMENT

This Colour Video Copy Processor is designed for operation on 220-240V, 50Hz AC. Never connect to any outlet or power supply having a different voltage or frequency.

WARNING: THIS APPARATUS MUST BE EARTHED.

AVERTISSEMENT: CET APPAREIL DOIT ETRE MIS A LA TERRE.

PROTECTIVE MEASURES

IF ABNORMALITIES ARISE, ...

Use of the unit during emission of smoke or abnormal sounds (without adopting countermesures) is dangerous. In such a case, unplug the power cord from the source outlet immediately, and request maintenance service from the sales dealer.

NEVER INSERT ANY OBJECT INTO THE UNIT

Foreign objects of any kind inserted into this unit consititute a safety hazard and can cause extensive damage.

DO NOT PLACE ANYTHING ON THE COLOUR VIDEO COPY PROCESSOR

Heavy objects placed on the Colour Video Copy Processor can cause damage or obstruct proper ventilation.

PROTECT THE POWER CORD

Damage to the power cord may cause fire or shock hazard. When unplugging, hold by the plug only and remove carefully.

DO NOT PLACE WATER CONTAINERS ON THE UNIT

Do not place flower vases, and other water-holding containers on the device. If, for some reason, water seeps to the inside of the unit, unplug the power cord from the source outlet, and contact the sales dealer. If used without corrective measures, the unit may be damaged.
"In the interest of safety, avoid handling of liquids near the unit."

DO NOT REMOVE THE CABINET

Touching internal parts is dangerous, besides, it may lead to malfunction. Contact the sales dealer to carry out internal checks and adjustments. Before opening the cover for eliminating a jammed paper, etc., be sure to disconnect the power cord plug.

UNPLUG THE POWER CORD DURING A LONG ABSENCE

Turn off the MAIN power switch and unplug the power cord during a long absence.

WHEN TRANSPORTING THE UNIT

When transporting the unit, remove the sheet cartridge and paper from the paper cassette, and insert the protective cushion into its compartment. Make sure to screw the printing unit down.

BE CAREFUL AROUND PRINT PAPER EXIT SLOT

Don't insert your hand or any material into the paper exit slot during printing.
Don't touch the cutter blade inside the paper exit slot.
Otherwise, your finger will be injured.

DO NOT TOUCH THE THERMAL HEAD

Do not touch your hand to the thermal head (located inside the unit).
The thermal head is heated to high temperature.
This may cause injury.

USE THE LITHIUM BATTERY CORRECTLY

If the lithium battery is used incorrectly, it may cause injury or fire.

- Be sure to observe the correct polarity while installing the battery.
- Keep away from children.
- Do not disassemble or burn the battery.

2. Precautions

BE CAREFUL WITH THE PRINTING UNIT

Don't move the unit while the printing unit is sliding out. This may cause injury.
Be careful not to catch your finger in the printing unit while the printing unit is being retracted into the unit.

CONNECTION CABLES

Use the provided power cord, composite video signal cable. When connecting the unit with an equipment with RS-232C interface, use the RS-232C cross-over cable.

INSTALLATION LOCATIONS

MAINTAIN GOOD VENTILATION

Ventilation slots and holes are provided on the top, sides and bottom of this unit. Place the unit on a hard and level surface and locate at least 10 cm from walls to insure proper ventilation. When putting the unit on the system rack, take a space between the unit and the back of the rack.

UNSUITABLE LOCATIONS

Avoid shaky places or hot-springs areas where hydrogen sulfide and acidic ions are likely to be generated.

PLACES WITH HIGH HUMIDITY AND DUST

Do not place the unit locations with high humidity and dust. They can cause extensive damage. Avoid places where unit is likely to be exposed to oily fumes and vapours.

PLACES NOT LIKELY TO BE EXTRMELY HOT

Places exposed to direct sunlight, or near heating appliances can attain extremely high temperatures, which may deform the cabinet, or can become a prime cause of damage.

PLACE THE UNIT ON A HORIZONTAL LEVEL

The unit is likely to be affected if it is placed in slanted conditions or in unstable places.

PROTECT AGAINST DEW FORMATION

In extremely cold regions, if the unit is moved quickly from an extremely cold place to warmer one, dew is likely to be formed.
If dew is formed, printing is not possible.

OPERATING AMBIENT TEMPERATURE RANGE

The operating ambient temperature range is 5°C- 40°C, and humidity of 20-80%. When using the unit on the system rack, be sure to keep this ambient temperature inside the rack.

FOR LONG OPERATING LIFE

UNSUITABLE MATERIALS FOR THE COLOUR VIDEO COPY PROCESSOR

Coat flaking and deformation are likely to occur if the unit is wiped with chemical dusters, benzine, thinner or any other solvent, if rubber or PVC items are left in contact with the unit for extended duration, or if the unit is sprayed with insecticide.

CARE OF THE CABINET

Unplug and clean with a soft cloth slightly moistened with a mild soap and water solution. Allow to dry completely before operating. Never use petroleum base solutions or abrasive cleaners.

HEAD ABRASION

The thermal head, like the video head, wears out. When it is abraded, it becomes hard to print out fine datails of the picture. In such a case, it is necessary to replace the thermal head. Consult with the sales dealer for replacing the head.

CONNECTING DEVICES

Read thoroughly "Operating Precautions" of the instruction booklets for the devices connected with the Colour Video Copy Processor.
The power cord must be disconnected after printing is over.

CAUTION ON RELOCATING

When transporting this unit, make sure it is not likely to be subjected to impacts. They can be a prime cause for damage. Further, make sure to disconnect the power cord from the power outlet, and the cables from the connected devices.

SAFETY CHECKS

Periods: According to the atipulations for safety checks in §11 paragraph 1 MedGV in the certificates according to §22 paragraph 1 and 2: or according to type approval according to §5 MedGV: or according to recommendations of the manufacturer of the medical device.

Scope: a) Visual inspection
Housing. leads, controls, displays, labels/ markings, accessories, operation manual.

b) Funcitonslity test
Testing of functions (according to operation manual) as well as compatibility and useability of device and accessories.

c) Electrical test
Testing of electrical safety of the system according to VDE 0751.

High humidity or dust

Avoid locations with high humidity and dust in order to avoid malfunctioning of the device.

Also avoid locations subject to corrosive gasses and smoke.

Heat

Direct sunlight, heaters or other heat sources may deform the housing and suvsequently cause malfunctioning.

OTHER CAUTIONS

Dust or other foreign matter adhering to the print paper or the sheet cartridege, or deformation resulting from exposure to extremely low or high temperatures could cause loss of colour, uneven colour or lines, or wrinkles in the print images.

If there is noise or vibration in the VCR still-image or playback picture, the print image may be distorted or the upper part may be crooked.

NOTE:
YOUR UNDERSTANDING IS REQUESTED FOR THE LOSS OF IMAGES IN MEMORY DUE TO THE SUDDEN OCCURENCE OF A MALFUNCTION.

As for paper sheet set, refer to page 7 "Installing print paper and ink sheet".

3. Preparations before operation

1 Removing the fixed screw on the printing unit and protective cushion Pages 5 - 6

2 Installing the lithium battery Page 6

○ Power for memorizing the day and present time are supplied by a lithium battery. Before using this unit install the rithium battery.

3 Installing the print paper and ink cassette. Pages 7 -9

○ Install the print paper.

○ Install the cassette with ink sheet.

4 Setting the present time Pages 10 - 13

○ Set the day and present time to print on the lower part of the print.

1 Removing the fixed screw on the printing unit and protective cushion

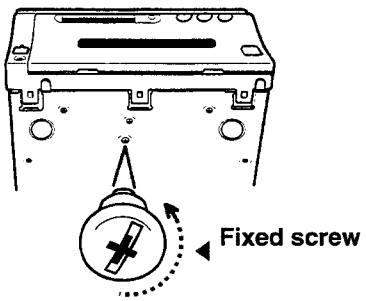
When using the unit for the first time, remove the fixed screw on the printing unit and protective cushion.

■ Remove the fixed screw on the printing unit.

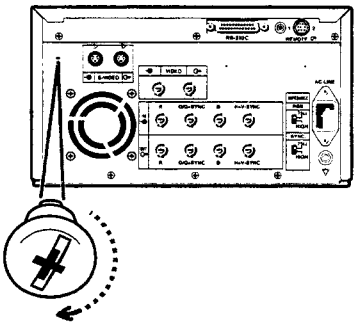
○There is a fixed screw at the bottom of the printing unit.

❶ Remove the fixed screw with a screwdriver or coin.

❷ Set the removed screw to the hole on the rear panel for keep the screw.



▼ Stored position



Attention:

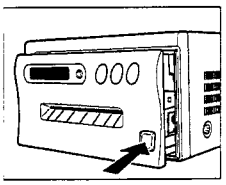
○ Keep the removed fixed screw by setting it to the hole on the rear panel. This screw is required when transporting this unit.

○ Make sure you set the fixed screw to the bottom of the unit when transporting the printer.

■ Remove the protective cushion.

Note: Unplug the power cord from outlet for safety.

❶ Press the OPEN button on the front panel.
Printing unit will slide out.



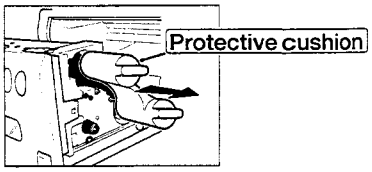
Attention▼

○ Do not touch the thermal head.
Fingerprints or dust on the thermal head will degrade the print quality.

❷ Pull out the protective cushion from the right side.

Attention▼

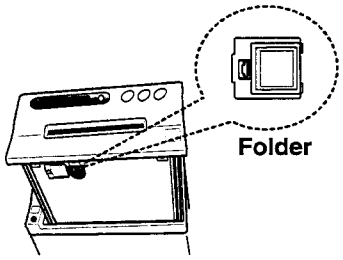
○ Keep the protective cushion for transporting this unit.
○ It is very important to transport this printer with the protective cushion installed so as not to damage the printing unit.



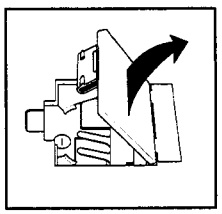
2 Installing the lithium battery

Power for memory of day and present time are supplied by a lithium battery.
Install the lithium battery (accessory CR2025) by the following procedure after plugging the VCP.

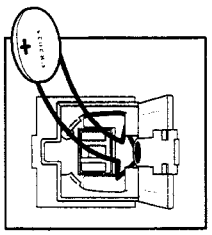
▲Install the lithium battery to the folder.



❶ Open the door.



❷ Install the battery with the (+) side facing out.



❸ Close the door

○ If the installed battery is dead or a battery has been installed incorrectly, the built-in clock and power loss listing will not function properly.
○ When changing the battery, pry the battery out of the holder with a sharp object.
○ After changing the battery, set the present time and day.

Note :

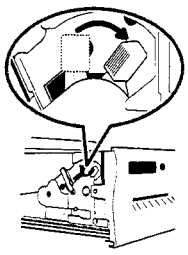
○ Take care of the battery. Refer to pages on lithium battery precaution.
○ The setting before installing the battery is not valid. When operating this unit without any settings, the strobe function may not be operated.

3. Preparations before operation

3 Installing print paper and ink sheet

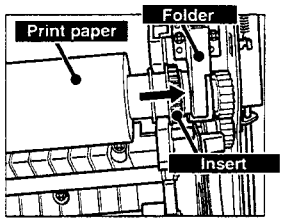
■ Installation procedure of print paper

❶ Move the knob on the printing unit to the direction indicated by the arrow.

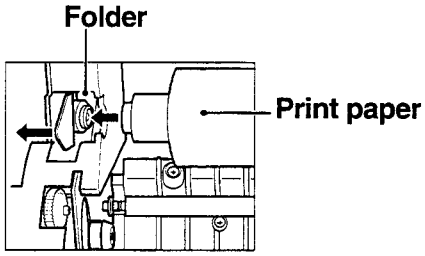


❷ Insert the print paper in the position as shown below.
Place the gear to the right side.

Right side



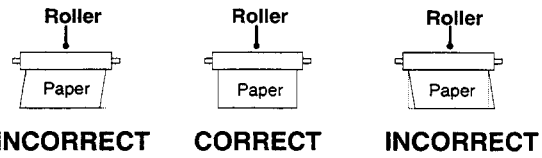
Left side

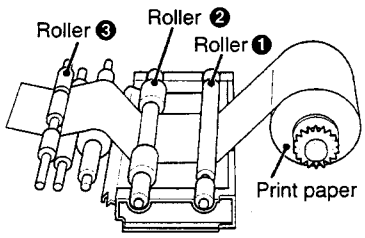


- Set the paper roll first on the right side paper holder.
- Set the paper roll on the left side paper holder.

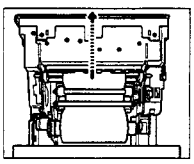
❸ Insert the print paper between roller 1 and 2.

❹ Insert the edge of the print paper to roller 3.
Be sure to insert the paper straight.

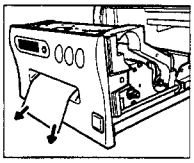




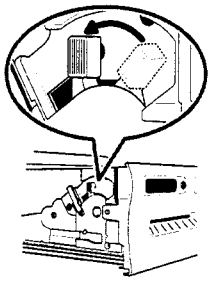
❺ Feed the print paper through the exit slot straight with your hand.



❻ Pull the print paper to eliminate slack

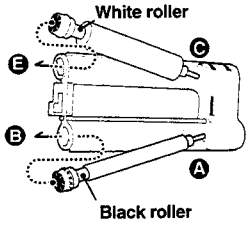


❼ Move the knob on the side of the printing unit to the direction as indicated by the arrow.



■ Install the ink sheet

Install the ink sheet to the ink cassette before installing the sheet cassette to the unit.



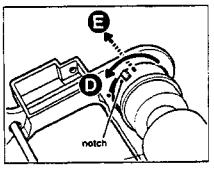
❶ Set the black roller of the ink sheet to ink cassette as shown right Ⓐ、Ⓑ.

❷ Set the thin stick of white roller to the ink cassette as shown right Ⓒ.

❸ Set the thick stick of white roller of the ink cassette as shown right Ⓓ、Ⓔ.

In the step ❸, turn the roller and set the notch of the roller side to the hole of the cassette .

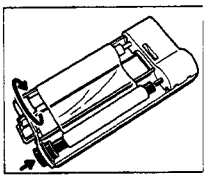
Install the roller by putting the notch through the hole.



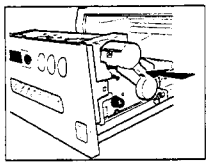
■ Install the ink cassette

❶ Eliminate any slack of the ink sheet.

Push the black roller and turn the white roller.

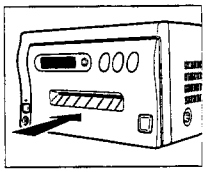


❷ Insert the ink cassette with the ink sheet into its compartment.
Insert the ink cassette with the knob side toward you.



■ Set the printing unit

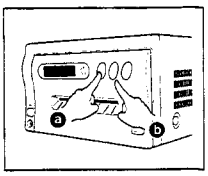
❶ Push the printing unit until it is locked into place.



❷ After plugging the power cord, press the " POWER" button on the front panel.

❸ Press the MEMORY(ⓑ) button for about 1 second while pressing the MONITOR (ⓐ) button on the front panel .

○ The print paper is automatically cut after sending by about 10cm.



❹ Repeat ❷ step.
(Fingerprints and dust can be removed by feeding the print paper. The printing unit is initialized.)

Attention▼

○ When setting the print paper, the set paper is a little pulled into the unit. Take care that any object is not pulled into the unit with the print paper.

○ In ❷~❸steps,press the **"MONITOR"** first. If MEMORY button is pressed first, the stored in memory may be cleared.

○ Do not feed the print paper (❷~❸ steps) more than 2 times. Doing so will not arrow the number of prints indicated on page 9 to be printed.

○ If the print paper is pulled out too much at installing, an error may occur with the display "PAPER JAM 12". In this case, initialize this unit again. (❷~❸ steps)

●The installation of the print paper and ink sheet is completed.

3. Preparations before operation

Print paper and ink sheet

Attention▼

○ Listed below is the print paper and ink sheets available for the CP700E. Make sure you use only these consummables.

Ink sheet

Product name	Ink sheet size	Number of prints	Usage
PK700S	S size	2 0 0 sheets	For 3 color use
PK700L	L size	1 2 5 sheets	For 3 color use

Print-paper

Product name	Pint size	Number of prints	Usage
CK700	S / L size	S size: 2 0 0 sheets L size: 1 2 5 sheets	For 3 color use

Note:

○ Please observe the following precautions.

Precautions before printing

- Fingerprints or dust on the paper's printing surface may degrade print quality and cause paper jams. Immediately after the paper is replaced, 2-3 images may be printed with a blank part due to hand's dust or oil.
- When print paper is rapidly transferred from a cool place to a hot place, vapor or dew is generated on the paper's surface causing paper jams or deraded print quality. Leave the print paper in the room to stabilize its temperature before using it.
- When print paper and ink sheet runs out during printing, the printing operation stops and the error message "PAPER EMPTY" or "SHEET EMPTY" is displayed. Replace the print paper and ink sheet with a new one.
- If paper feeding is repeated while installing the print paper, the indicated number of prints may not be done.

After printing

- When the printed paper is touched by a wet hand, the print may be discolored.
- If the paper absorbs non-volatile organic solvents (alcohol, ester, ketone etc.) the print may be discolored.
- Discoloration of prints will be accelerated if the print paper comes into contact with soft vinyl chloride such as transparent tape etc.

Storage

- Store the prints in a place with low humidity free from direct sunlight.
- Leaving the print paper in contact with PVC-based materials causes color of print paper to come off and to be stained.
- Avoid direct sunlight and placing the printed paper near a heater.

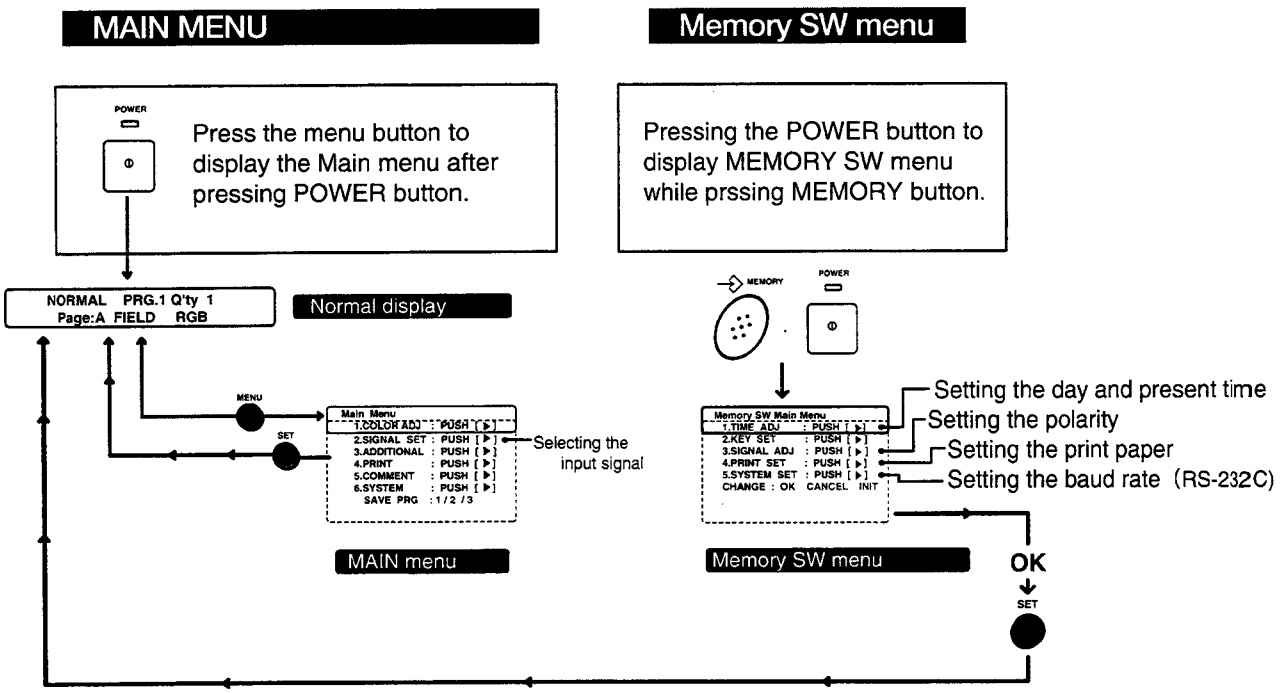
Note:

- If the print paper is installed for two or more days, the prints may be rolled after printing. There is no cause for alarm because the print paper is rolled on the inside of the printing unit.

Menu display

When setting the day and present time , use the menu on the LCD display.
Also use the menu when selecting each setting after connecting an external device or selecting the print size (S / L).

- ○ There are 2 menus, Main menu and Memory SW menu.
- ○ Each menu is displayed as shown below.


MAIN MENU
Memory SW menu
POWER
Press the menu button to display the Main menu after pressing POWER button.
Pressing the POWER button to display MEMORY SW menu while prssing MEMORY button.
NORMAL PRG.1 Q'ty 1
Page:A FIELD RGB
Normal display
MENU
SET
Main Menu
1.COLOR ADJ : PUSH [▶]
2.SIGNAL SET : PUSH [▶]
3.ADDITIONAL : PUSH [▶]
4.PRINT : PUSH [▶]
5.COMMENT : PUSH [▶]
6.SYSTEM : PUSH [▶]
SAVE PRG : 1 / 2 / 3
Selecting the input signal
MAIN menu
MEMORY
POWER
Memory SW Main Menu
1.TIME ADJ : PUSH [▶]
2.KEY SET : PUSH [▶]
3.SIGNAL ADJ : PUSH [▶]
4.PRINT SET : PUSH [▶]
5.SYSTEM SET : PUSH [▶]
CHANGE : OK CANCEL INIT
Setting the day and present time
Setting the polarity
Setting the print paper
Setting the baud rate (RS-232C)
Memory SW menu
OK
SET

- ● Setting input signal.
  Refer to pages 29-30.

- ●Setting the present time
  Refer to pages 11-13.
- ●Setting the polarity.
  Refer to pages 15-16 .
- ● Setting the print paper.
  Refer to pages 31-32 .
- ● Setting the baud rate.(RS-232C)
  Refer to pages 19-21 .

- ○ For each setting, refer to the pages above.
  Use the remote control to set the functions.

3. Preparations before operation

4 Setting the present time

■ Setting the day and present time

Set the day and present time on the lower part of the print by the following procedure.

○ Set the day and present time in the menu on the monitor display or LCD display.

A . Display "Memory SW Main Menu"

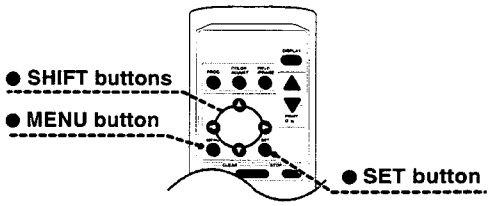
○ Make sure to turn off power.

❶ Press the POWER button while pressing the MEMORY button. Menu display for button function " **Memory SW Main Menu** " is displayed.

LCD display

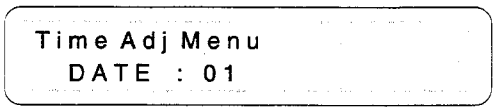
B . Display "Time Adj Menu"

All these functions are operated with the remote control using the menus displayed on the monitor screen.



❷ Press the RGHT ▶ button.

○ " **Time Adj Menu** " is displayed.
Set the day and present time on the menu.



LCD display

C . Setting the day and present time

・Setting part is displayed in red on the monitor.

Setting the day

○ "DATE" is indicated on the LCD display.

❸ Press UP ▲ or DOWN ▼ button to change the value.

❹ Press the shift button ▶.

Date is set and "MONTH" is displayed on the LCD .

❸ Press the UP ▲ button or DOWN ▼ button to change the value.

❹ Press the RIGHT ▶ button. The month is set and display the "YEAR".

○The "YEAR" is displayed on the LCD .

❺ Press the UP ▲ button or DOWN ▼ button to change value.

❻ Press the RIGHT ▶ button.

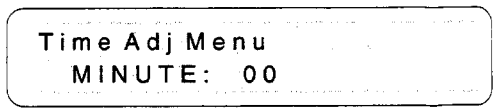
○ The day is set and the present time is displayed.
The "HOUR" is displayed on the LCD .

Setting the present time

❼ Press the UP ▲ and DOWN ▼ button to change the value.

❽ Press the RIGHT ▶ button.

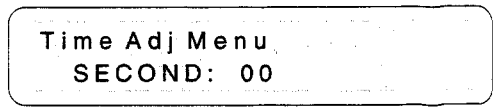
○ "HOUR" is set and the "MINUTE" is displayed.
The "MINUTE" is displayed on the LCD.



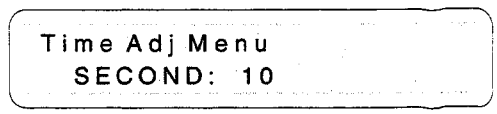
❾ Press UP ▲ or DOWN ▼ button to change the value.

❿ Press the RIGHT ▶ button.

○ The "MINUTE" is set and the "SECOND" is displayed .
The "SECOND" is displayed on the LCD.



⓫ Press UP ▲ or DOWN ▼ button to change the value.



3. Preparations before operation

⑫ Press the SET button.

○ When pressing the SET button, the present time function will be started.

```
Time Adj Menu
  SECOND: 31
```

⑬ Press the SET button.

○ " Memory SW Main Menu " display is shown.

```
Memory SW Main Menu
 1.TIME ADJ :PUSH[>]
```

⑭ Press the SET button.

○ " CHANGE : OK " is selected.

```
Memory SW Main Menu
  CHANGE: OK
```

○ Press the RIGHT or LEFT button to select "OK" or "CANCEL" according to the setting.

○ The source image is shown when selecting OK and press the SET button.

■ Change the date and present time setting

○ When the LEFT button is pressed during setting the date and present time, the cursor moves to the previous step.

Press UP or DOWN button to change the value.

○ Date and present time setting is completed.

4. Connection with external equipment

The functions of this unit can be set with the menu screens displayed on the monitor.

1 Connection with Monitors **Pages 14 - 16**

Explains how to connect with a monitor.
Explains the setting of sync. polarity.
○ When the sync. polarity of a monitor differs from the initial setting of this unit, the image on the monitor may not be displayed correctly. In this case, set the sync. polarity according to the monitor.
When the image is displayed on the monitor correctly, the setting is not required.

2 Connection with VIDEO/S-VIDEO (Y/C separate VIDEO) signal equipment **Page 17**

Explains how to connect with a video signal equipment.
Explains how to connect with a S-video signal equipment.

3 Connection with RGB Analog Signal equipment **Page 18**

Explains how to connect with a RGB analog signal equipment.

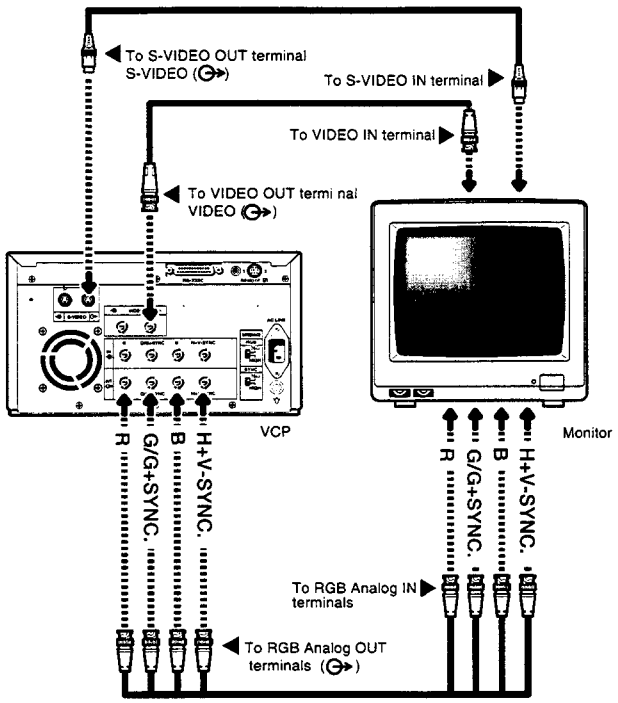
4 Connection with RS-232C equipment **Pages 19 - 21**

Explains how to connect with a RS-232C equipment.

1 Connection with Monitors

Connect this unit with a monitor to check the images to be printed and the images stored in memory.
The following example shows the connection with a video signal, a S-video signal and RGB analog signal equipment.
Connect with the necessary signal equipment.

When connecting the unit with a monitor, make sure to set the power of each equipment to "OFF".



4. Connection with external equipment (Monitor)

Setting the sync. polarity and output sync. signal

When the sync. polarity or sync. signal of a monitor to be connected is not adjusted to the initial setting of this unit, the image may not be displayed correctly. In this case, adjust the sync. polarity and sync. signal output to the monitor.
When the image is displayed correctly, the setting is not required. (Refer to the operation manual of the monitor as for the sync. polarity and sync. signal of the monitor.)

Displaying the menu

- ○ The sync. polarity and sync. signal is set by the menu displayed on LCD.
- ○ Make sure to turn off the power before setting.

Displaying "Memory SW Main Menu"

❶ Press the POWER button while pressing the MEMORY button on the front panel.
The menu for memory switch "**Memory SW Main Menu**" is displayed.

LCD

Displaying "Signal Adj Menu"

▼ Use the buttons on the remote control to display and set the items in this menu.

❷ Press the DOWN ▼ button to select " **3. SIGNAL ADJUST : PUSH [▶]** " menu.

❸ Press the RIGHT ▶ button.

- ○ The menu for signal setting, " **Signal Adj Menu**" is displayed.
- ○ The sync. polarity," **SYNC**" and output sync signals, "**OUTPUT SYNC** " and " **RGB SOG OUT** " can be set in this menu.

Setting the sync. polarity "SYNC : NEGA POSI "

❹ Press the UP ▲ or DOWN ▼ button to select "**SYNC** " .

- ○ In the initial setting, "IN SYNC" is selected in " **3.SIGNAL ADJ : PUSH [▶]**". When other menu is selected, press the UP ▲ or DOWN ▼ button to select "**SYNC**".

The sync. polarity being selected, for example, "**NEGA**" is displayed.

Press the RIGHT ▶ or LEFT ◀ button to select "**NEGA**" or "**POSI**" according to the polarity of the equipment to be connected.

Setting the output sync. signal "OUTPUT SYNC"

❺ Press the DOWN ▼ or UP ▲ button to select "**OUT SYNC** ".

○ The set level of the sync. signal, for example, "**0.3V** " is displayed.
Set the sync. signal according to the equipment to be connected.

Press the RIGHT ▶ or LEFT ◀ button to select "**0.3V**" or "**TTL** ".

0.3V 0.3Vp-p
TTL .... TTL level

Setting the output RGB Analog signal 'RGB SOG OUT'

❻ Press the DOWN ▼ or UP ▲ button to select " **RGB SOG OUT** " .

❼ Press the RIGHT ▶ or LEFT ◀ button to select "**ON**" or "**OFF**".

OFF..... Outputs Composite Sync. signal
ON ..... Outputs Sync. On Green + Composite Sync. signal.
Select "**ON**" or "**OFF**" according to the monitor to be connected.

❽ Press the SET ● button.

○ " **CHANGE : OK/CANCEL** " is selected.

Press the RIGHT ▶ or LEFT ◀ shift button to select "**OK** " or " **CANCEL** " .

❾ Select "**OK** " , then press the SET ● button.

○ "**Memory SW Main Menu**" is displayed.

❿ Press the SET ● button.

○ " **CHANGE : OK** " is selected.

⓫ Select "**OK** " , then press the SET ● button.

○ The source image (input signal from the equipment) is displayed.

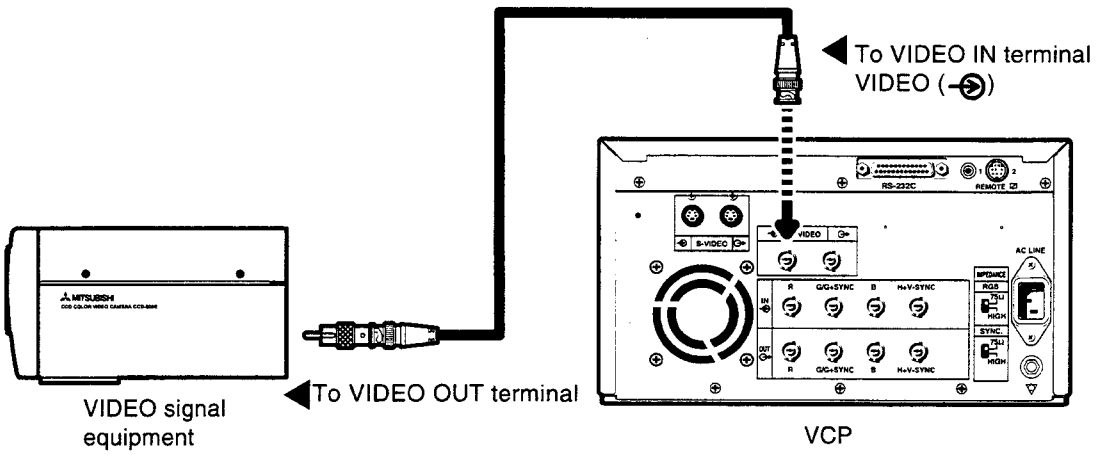
●The setting of the sync. polarity and signal is completed.

4. Connection with external equipment (VIDEO/S-VIDEO)

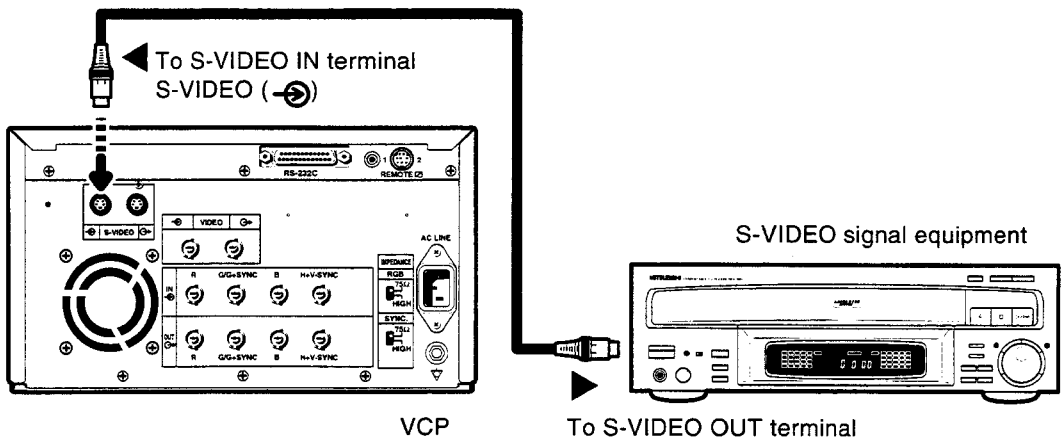
2 Connection with VIDEO signal, S-VIDEO (Y/C separate VIDEO) signal equipment

When connecting the unit with another equipment, make sure to set the power of each equipment to "OFF".

VIDEO signal



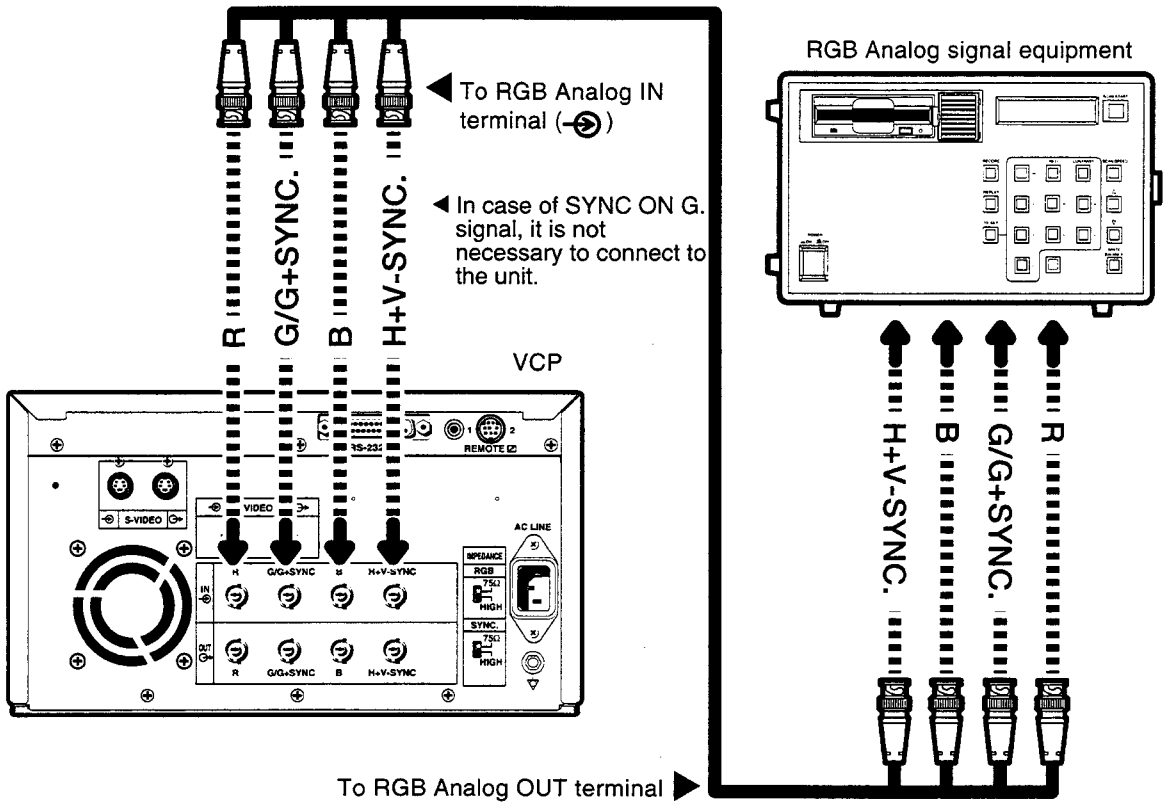
S-VIDEO signal



4. Connection with external equipment (RGB Analog signal)

3 Connection with RGB Analog Signal equipment

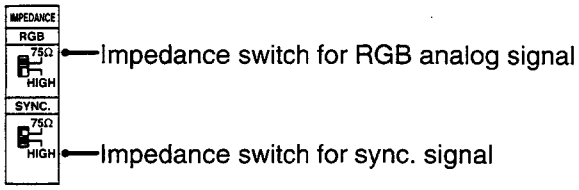
○ When connecting the unit with another equipment, make sure to set the power of each equipment to "OFF".



○ Use BNC type cable on the market for connection.
○ This unit functions at 15.625 kHz for H and 50Hz for V.

Setting the switches

○ Set the impedance switches " IMPEDANCE " on the rear panel to the impedance of the equipment connected.
Normally,
a.Set the RGB analog singnal to " 75Ω " .
b.Set the sync signal to "HIGH.

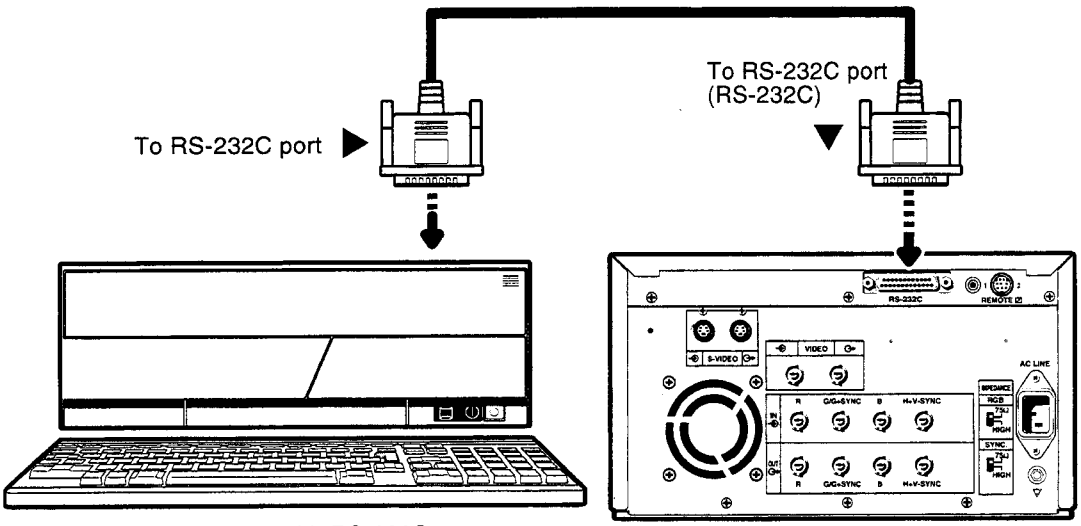


NOTE: When the power turns off or the display is not appeared with analog through mode, the impeadance switch is not available. So, connect the unit with the side of monitor or external terminal .

4. Connection with external equipment (RS-232C Interface)

4 Connection with RS-232C equipment

○ When connecting the unit with another equipment, make sure to set the power of each equipment to "OFF".



Setting BAUD RATE

Set the baud rate of this unit according to the equipment to be connected.
○ As to the baud rate of the equipment connected, refer to the operation manual of the equipment connected.

Displaying the menu screen

○ The baud rate is set on the menu displayed on the monitor screen or LCD. (The following is an example of display on LCD.)
○ Make sure to turn off the power before setting.

Displaying "Memory SW Main Menu"

❶ Press the POWER button while pressing the MEMORY button on the front panel.
○ The menu for memory switch, "Memory SW Main Menu " is displayed.

```
Memory SW Main Menu
1.TIME ADJ :PUSH[>]
```

Displaying "System Set Menu"

▼ Use the buttons on the remote control to display and set this menu.

❷ Press the DOWN ▼ button to select "**5. SYSTEM SET : PUSH [▶]**".

```
Memory SW Main Menu
5.SYSTEM SET:PUSH[>]
```

❸ Press the RIGHT ▶ button.
○ The menu for signal setting, " **System Set Menu** " is displayed.
○ Set " **BAUD RATE** " on this menu.

```
System Set Menu
PRG ALL INIT : OFF
```

4. Connection with external equipment (RS-232C Interface)

Setting BAUD RATE

❶ Press the DOWN ▼ or UP ▲ shift buttons to select " **BAUD RATE** ".

The set baud rate, for example, " **9600** " , is displayed.

Press the RIGHT ▶ or LEFT ◀ SHIFT button to select "**1200** ", " **2400** ", "**4800**" or " **9600** " Bit/Sec) .

❷ Press the SET ● button.

○ " **CHANGE : OK** " is selected.

○ Press the RIGHT ▶ or LEFT ◀ shift button to select "OK" or " CANCEL " .

❸ Select "OK " , then, press the SET ● button.

○ " Memory SW Main Menu" is displayed.

❹ Press the SET ● button.

○ " **CHANGE : OK** " is selected.

❺ Select "OK ", then, press the SET ● button.

○ The source image (input signal from the equipment connected) is displayed.

● The setting of BAUD RATE is completed.

Setting the RS-232C COMMAND TYPE

Select "A' or "B" according to the equipment connected.

❶ Press the DOWN ▼ or UP ▲ buttons to select " **COMMAND TYPE** ".

Press the RIGHT ▶ or LEFT ◀ SHIFT button to select **"A** " or **"B".**

❷ Press the SET ● button.

○ "CHANGE : OK " is selected.

○ Press the RIGHT ▶ or LEFT ◀ button to select "OK" or " CANCEL " .

❸ Select "OK " , then, press the SET ● button.

○ " Memory SW Main Menu" is displayed.

4. Connection with external equipment (RS-232C Interface)

❹ Press the SET button.

○ " **CHANGE : OK** " is selected.

❺ Select "OK ", then, press the SET button.

○ The source image (input signal from the equipment connected) is displayed.

● The setting of COMMAND TYPE is completed.

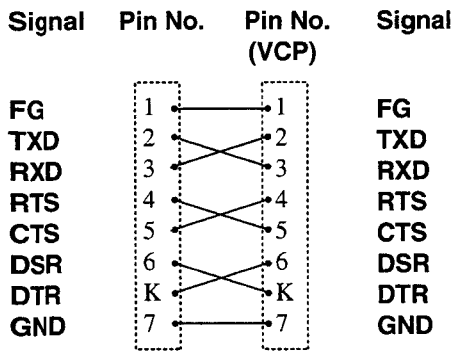
RS-232C DATA SIGNAL

RS-232C input connector port signal allocation

Pin No.	Signal line name	Description	Directions (From VCP side)
1	FG	Protective —	
2	TXD	Transmitted data	Output
3	RXD	Received data	Input
4	RTS	Request to send	Output
5	CTS	Clear to send	Input
6	DSR	Data set ready	Input
7	GND	Signal ground	---
20	DTR	Data terminal ready	Output

Pin connection

○ Connect the unit with the host computer through cross-over cable.



Cross-over cable

Setting the communication format of the computer

○ Set the communication format as follows:

(1)	Synchronizing system	Asynchronous communication
(2)	Data bit length	8 bits
(3)	Parity bit	Nothing
(4)	STOP bit length	1
(5)	Transmission order	Sent from LSB
(6)	Baud rate (Bit / Sec)	1200, 2400, 4800, 9600

RS-232C function

○ This unit can be controlled through RS-232C terminal.
(The input of image data is not possible.)
Consult with the sales dealer for the details of controlling method (protocol).

5. Features and functions

1 FRONT PANEL pages 22 - 23

Explains the buttons and terminals, etc. on the front panel.

2 INSIDE OF PRINTING UNIT page 23

Explains the installation of the ink cassette, print paper and battery inside the unit.

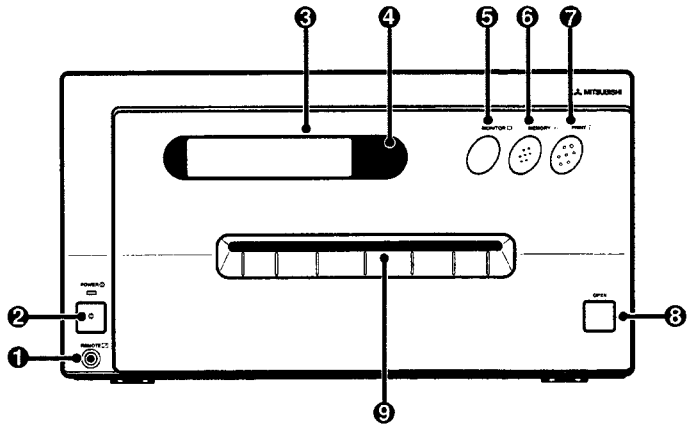
3 REAR PANEL page 24

Explains input/output terminals on the rear panel.

4 REMOTE CONTROL pages 25 - 26

Explains the functions of the buttons on the remote control.

1 FRONT PANEL



❶ **Remote terminal [REMOTE]**

Connect the remote control of the printer in this terminal.

The remote control cannot be worked when connecting to the "REMOTE 1" terminal on the rear panel.

❷ **Power button [POWER]**

Press this button to turn on and off the power. When power is turned on, the indicator lights up.

❸ **LCD display**

Displays the set conditions of the input signal, and used to set various functions.

(The menus displayed on the monitor or LCD are used to set various settings.Refer to pages 37 - 62.)

❹ **LCD contrast control [LCD CONTRAST]**

Adjusts the contrast of the LCD. Turn this control by pressing with a finger. Set the contrast so that you can see the displayed characters easily.

❺ **Monitor button [MONITOR]**

Switches the display on the monitor. When this button is pressed, the picture on the monitor screen switches between the picture of the input signal (source image) and the memorized image.

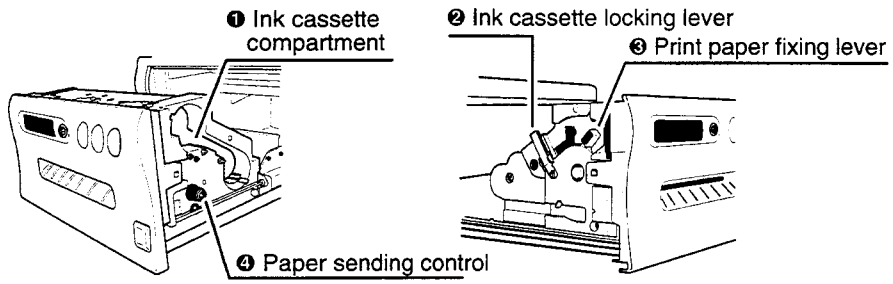
❻ Memory button [MEMORY]
This enables memorization of the image to be printed.

❼ Print button [PRINT]
Press this button to print the images memorized by the MEMORY button. A green lamp will light during printing. The screen switches to the picture of the input signal.

❽ Open button [OPEN]
When this button is pressed, the printing unit advances to the front. The printing unit is used when loading ink cassette and printing paper or overcoming paper jams.

❾ Print outlet
The printed paper come out here.

2 INSIDE OF PRINTING UNIT



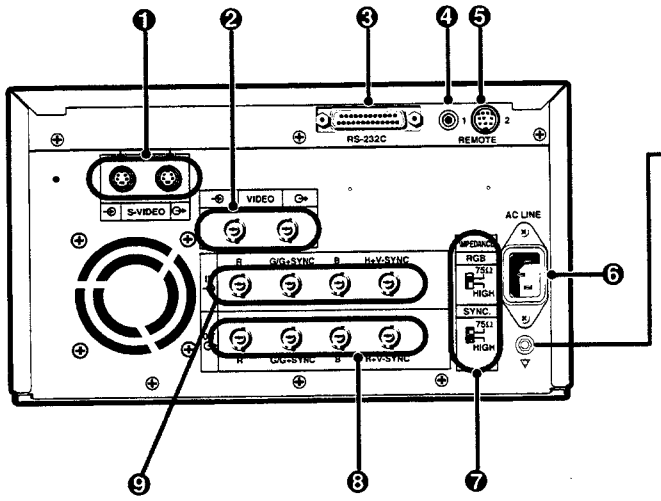
❶ Ink cassette compartment
Load the cassette with ink sheet.

❷ Ink cassette locking lever
Push this lever to take the ink cassette out.

❸ Print paper fixing lever
Use this lever when inserting print paper.

❹ Paper sending control
Turn this control clockwise to rewind the print paper.

3 REAR PANEL



Potential equalization connector
This is used to equlize the potential of the equipment connected to the unit.
In medical rooms, when CF-type equipment* are connected, it is necessary to equalize the potential of both units.
For details, refer to the installation instruction of the equipment to be connected.

* TYPE CF EQUIPMENT
Class I or II EQUIPMENT or EQUIPMENT with an INTERNAL ELECTRICAL POWER SOURCE, providing a high degree of protection against electric shock particulary regarding allowable LEAKAGE CURRENTS, and having an F-TYPE ISOLATED (FLOATING) APPLIED PART.
TYPE CF EQUIPMENT is primarily intended for DIRECT CARDIAC APPLICATION.

❶ S-VIDEO SIGNAL INPUT/OUTPUT TERMINALS [S-VIDEO]
Use these terminals to connect this unit to S-VIDEO signal equipment.
Refer to page 17 for connection.

❷ VIDEO INPUT/OUTPUT TERMINALS [VIDEO]
Use these terminals to connect this unit to VIDEO signal equipment.
Refer to page 17 for connection.

❸ RS-232C PORT [RS-232C]
Use this terminal to connect this unit to a device equipped with RS-232C interface.
Refer to pages 19 - 21 for connection.

❹ EXTERNAL REMOTE TERMINAL [REMOTE 1]
Memorizing images are available by the remote signal inputted through this terminal. It is necessary to make a circuit for remote control to use the function.
Refer to page 81.

❺ EXTERNAL REMOTE TERMINAL [REMOTE 2]
Memorizing images and printing are available by the remote signal inputted through this terminal. It is necessary to make a circuit for remote control to use the function.
Refer to pages 79 - 81.

❻ POWER SOCKET [AC LINE]
This socket connects to the power cord (accessory).
Insert the cord firmly.

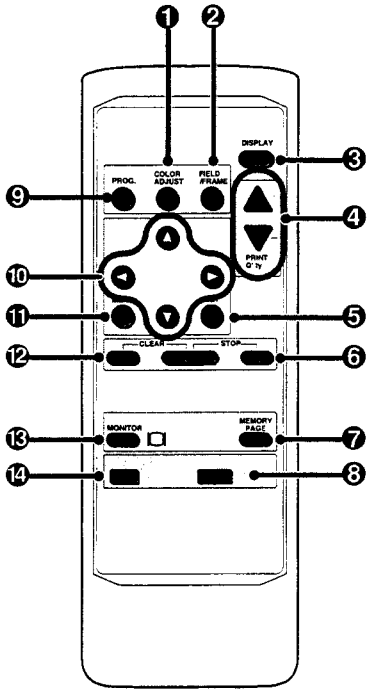
❼ IMPEDANCE SELECTION SWITCH [IMPEDANCE RGB, SYNC.]
This is a 75Ω / HIGH impedance selection switch for RGB or Sync. signal.

❽ RGB ANALOG OUTPUT TERMINALS [R,G/G+SYNC, G,H+V-SYNC]
This is a BNC type output terminal for a RGB analog signal. Sync. signal can be selected between 0.3V(H+V-SYNC) and TTL(H+V-SYNC.) signals.
Refer to page 18 for connection.

❾ RGB ANALOG INPUT TERMINALS [R,G/G+SYNC , B,H+V-SYNC]
This is a BNC type input terminal for a RGB analog signal. The sync. signal can be automatically selected between H/V composite and SYNC. ON GREEN (sync. signal imposed on the green video signal) signals. Refer to page 18 for switch setting.

5. Features and Functions

4 REMOTE CONTROL



❶ **COLOR IMAGE ADJUSTMENT button [COLOR ADJUST]**
When this button is pressed, a screen for adjusting the video image is displayed. Use this button to set the various functions of this unit. (The menus displayed on the monitor or LCD is used to set the various settings. Refer to Pages 43 - 44.)

❷ **FIELD/FRAME button [FIELD / FRAME]**
Press this button to switch the input signal between the FRAME or FIELD mode.
Every time this button is pressed, the mode is switched in the order of "FIELD", "FRAME" and "FIELD".

❸ **DISPLAY button [DISPLAY]**
When this button is pressed, the set conditions are displayed on the monitor screen. Press it again so that the display is not shown.

❹ **PRINT QUANTITY button [PRINT Q'ty]**

This button is used to set the number of prints. Press ▲+ button to increase the number and ▼− button to decrease.

❺ **SET button [SET]**
Use this button to set the various functions of this unit. For example, use it to fix the setting and return to the normal display from the menu screen. (The menus displayed on the monitor or LCD is used to set the various settings. Refer to pages 40 - 41.)

❻ **STOP button [STOP]**
Press this button and the button to the left side of STOP button at the same time to cancel the printing process. The image is printed out in the state when the printing was cancelled.

❼ **MEMORY PAGE button [MEMORY PAGE]**
This button is used to select the image memorized by the MEMORY button. Every time this button is pressed, the memory page is switched.

⑧ PRINT button [PRINT]

Press this button to print the image memorized by the MEMORY button. The image on the monitor screen is switched to the picture of the input signal.

⑨ PROGRAM button [PROG.]

Press this button to select the images memorized in the program of this unit and various settings such as printing.
Each time this button is pressed, the program is switched. This unit has 3 kind of programs and they can be changed and stored voluntarily.
Programs cannot be changed during printing.

⑩ SHIFT buttons

These buttons are used to change settings, such as selecting a function and moving to the next menu. (The menus displayed on the monitor or LCD is used to set the various settings. Refer to pages 40 - 41.)

⑪ MENU button [MENU]

Press this button to display the main menu.
This button is used to set the various settings.(The menus displayed on the monitor or LCD is used to set the various settings. Refer to pages 40 - 41.)

⑫ CLEAR button [CLEAR]

Press this button and the right side button at the same time to eliminate all or a part of memorized images.

⑬ MONITOR button [MONITOR]

When this button is pressed, the picture on the monitor screen switches between the picture of the input signal and the memorized image.

⑭ MEMORY button [MEMORY]

This enables memorization of the image to be printed.

6. Printing procedures (Basic prints)

One picture image can be printed on one sheet.

▲ S size printing

▲ L size printing

1 Printing **Pages 28 - 34**

Explains storing an image in the memory and printing

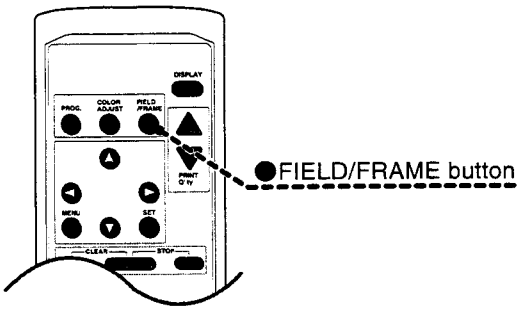
2 Continuous printing **Pages 35 - 36**

Explains the continuous printing of the same image.

1 Printing

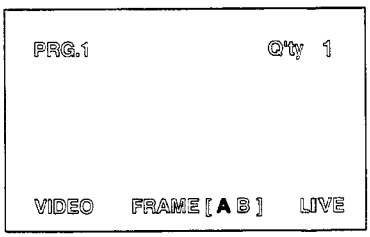
■ Selecting FIELD or FRAME

❶ Press the FIELD/FRAME button on the remote control to select FIELD or FRAME.

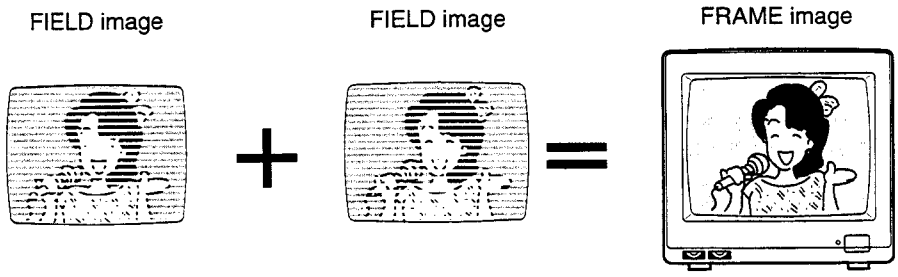


○ Select the FRAME mode for a high resolution still image printing.
Select the FIELD mode for a picture of quickly moving objects.

○ When the FIELD mode is selected, the print image will be lower in resolution.
The selected mode is displayed on the monitor screen and LCD of this unit.



FIELD/FRAME



○ A video picture is normally composed of two slighty lower resolution images ("FIELD" images) to form a single image ("FRAME" image).

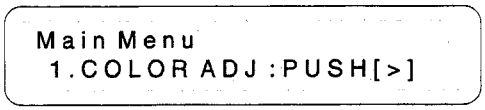
6. Printing Procedures (Basic prints)

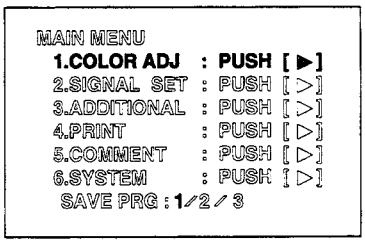
■ Selecting input signal

○ Select " VIDEO " , " S-VIDEO " or " RGB " according to the input signal.
○ The input signal can be set on the menu screen displayed on the monitor or LCD.
○ It is not necessary to select the input signal everytime you print unless the input signal is changed.

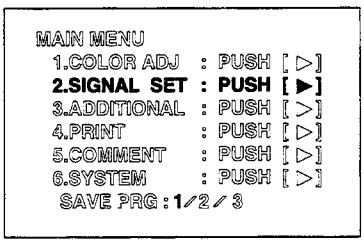
❶ Press the MENU button.

○ " **MAIN MENU** " is displayed.





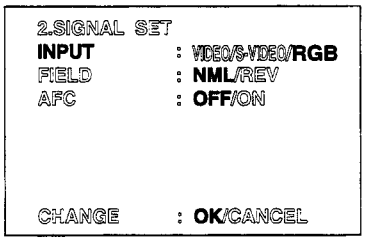
❷ Press the DOWN or UP button to select " **2. SIGNAL SET [▶]** ".



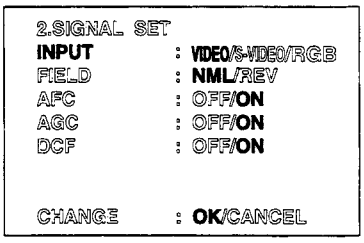
❸ Press the RIGHT button.

○ " **2. SIGNAL SET** " menu screen is displayed.

○ Normally, "INPUT " is selected when opening the **"2. SIGNAL SET [▶]** " on step ❷. When other item is selected, press the UP or DOWN button to select "INPUT ".



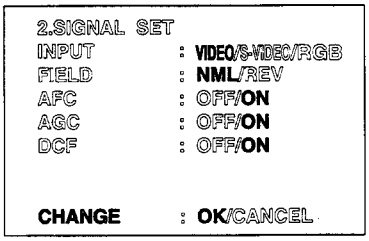
❹ Press the RIGHT shift button to select "VIDEO" , "S-VIDEO" or "RGB" .



❺ Press the SET button .

○ " CHANGE : OK" is selected.
○ When changing the input signal selected at step ❹, press the RIGHT button to select "CANCEL". Press the SET button to select "INPUT" in " 2. SIGNAL SET " again.

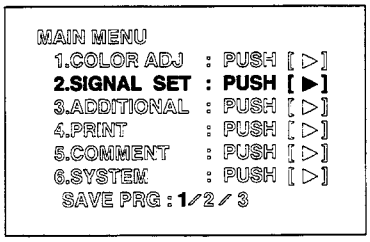
Signal Set Menu
CHANGE : OK



❻ Press the SET button.

○ The MAIN MENU is displayed.

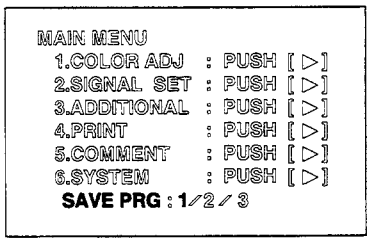
Main Menu
2.SIGNAL SET:PUSH[>]



❼ Press the SET button.

○ " SAVE PRG 1/2/3 " is selected.
○ This menu is used to store the setting in any one of 3 programs (1, 2 or 3).

Main Menu
SAVE PRG: 1



❽ Press the RIGHT or LEFT button to select the program number 1, 2 or 3 to store the setting.

○ The setting will be overlaid. In case of keeping the stored program, do not select the program No. in which the setting is stored.

❾ Press the SET button.

○ The source image (image from the input signal) is displayed.
○ The selection of input signal is completed.

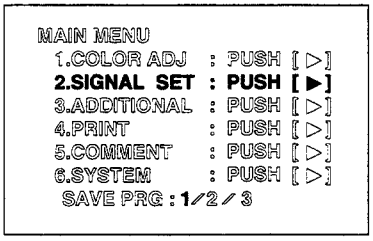
6. Printing Procedures (Basic prints)

■ Setting print size (S/L)

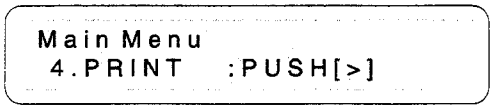
- ○ Set the print size to "S" or "L" according to the ink sheet installed.
- ○ The print size can be set on the menu screen displayed on the monitor or LCD.
- ○ It is not necessary to set the size everytime you print unless the size of the ink sheet is changed.

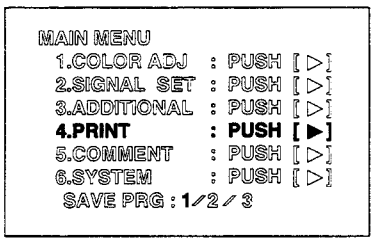
❶ Press the MENU button.

○ " MAIN MENU " is displayed.



❷ Press the UP ▲ or DOWN ▼ button to select " **4. PRINT PUSH [▶]** ".

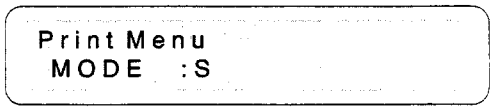


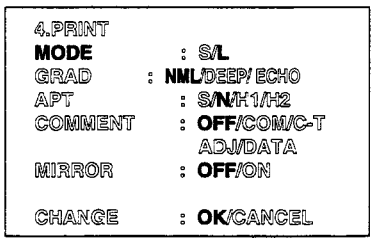


❸ Press the RIGHT ▶ button.

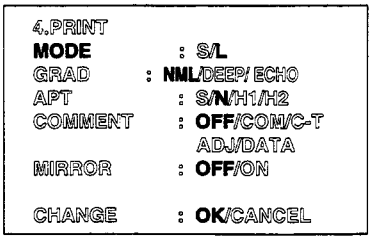
○ " Print Menu " is displayed.

○ When the power is turned on, "MODE:S/L" is already selected in "**4. PRINT PUSH [▶]** " at step ❷. If other item is selected, press the UP ▲ or DOWN ▼ button to select "MODE:S/L".





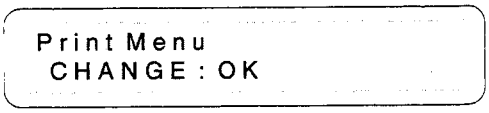
❹ Press the RIGHT ▶ or LEFT ◀ buton to select "S" or "L" in the "MODE".

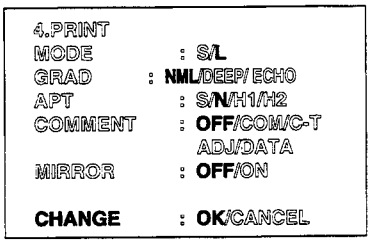


❺ Press the SET button.

○ " CHANGE : OK " is selected.

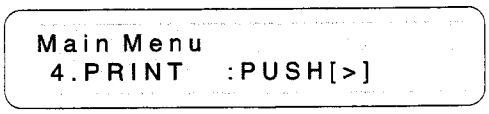
○ When changing the size setting selected at step ❹ , press the RIGHT ▶ button to select " CANCEL " . Press the SET button to select "MODE : S/L" in " 4.PRINT " again.

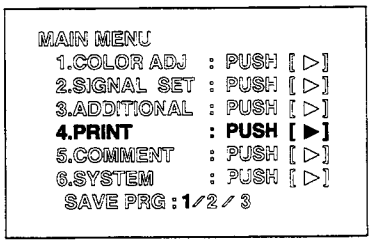




❻ Press the SET button.

○ The MAIN MENU is displayed.

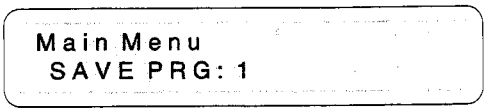


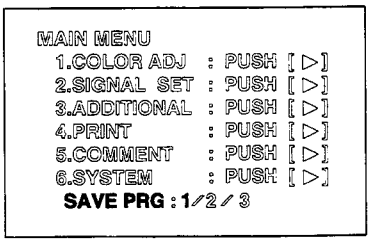


❼ Press the SET button.

○ " SAVE PRG 1/2/3 " is selected.

○ This menu is used to store the setting in any one of 3 programs (1, 2 or 3).





❽ Press the RIGHT ▶ or LEFT ◀ button to select the program number 1, 2 or 3 to store the setting.

○ The setting will be overlaid. In case of keeping the stored program, do not select the program number in which the setting is stored.

❾ Press the SET button.

○ The source image (image from the input signal) is displayed.

○ The setting of print size is completed.

6. Printing Procedures (Basic prints)

MEMORY PAGE

The following image memorization function is available since this unit has 2 frames to memorize images.

When storing one image in the memory:

○ In the frame mode, 2 images can be memorized in 2 frames.

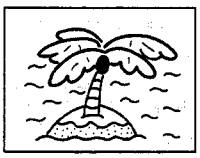
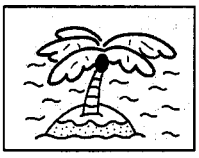


Image A Image B

1 frame + 1 frame = 2 frames

○ In the field mode, 4 images can be memorized in 2 frames.



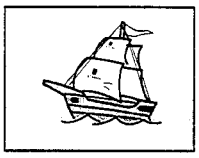
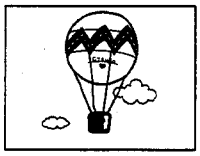



Image A Image B Image C Image D

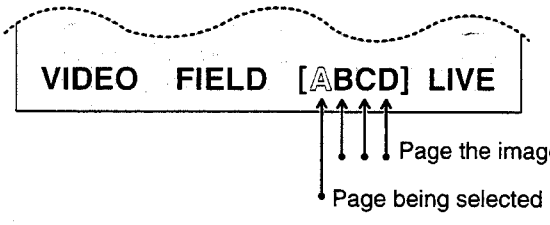
1/2 frame + 1/2 frame + 1/2 frame + 1/2 frame= 2frames
1 Field=1/2 frame

As the image in the field mode is printed in half the resolution level of that in frame mode, the print image will be lower in resolution.

○ Each time the " FIELD / FRAME " button is pressed, the number of memory page is switched.

○ The memory page is displayed as [A B] or [A B C D] on the lower part of the monitor screen.

● [A B] is displayed in the FRAME mode.
● [A B C D] is displayed in the FIELD mode.



- ○ The page to store an image can be selected by pressing the MEMORY PAGE button. The page being selected is shown in green.
- ○ The image will be stored in the selected memory page when pressing the MEMORY button. (when memory page increment is set to OFF)
- ○ When pressing the MONITOR button, the image of the memory page being selected is displayed on the monitor. When the memorized image is displayed, " MEMORY " is displayed on the upper part of the monitor screen. When the image of the input signal is displayed, "LIVE " is displayed. The memory image selected with the MEMORY PAGE button is displayed on the monitor.
- ○ An image can be stored in memory even while printng an image. (when print speed mode is set to Normal in memory page menu.)

■ Storing images in memory / Printing the images

❶ Display the image to be printed on the screen.

❷ Press the MEMORY button.
- ○ When images are memorized on one or more memory pages, press the MEMORY PAGE button on the remote control to select the memory page to be printed.
- ○ The selected page is indicated in green.
- ○ When displaying "MEMORY" on the monitor by pressing the MONITOR button, the image of the memory page being selected is displayed on the monitor.

❸ Press the PRINT button.
- ○ The memorized image is printed.
- ○ The memory page under printing is indicated on the monitor screen. The character showing the memory page under printing goes on and off in [A B] or [A B C D].

Image memorizing with PAGE INC (Page Increment) function

PAGE INC (Page Increment) : When the "automatic memory page turning" function is valid, the image memorizing is done as follows:

- ○ Each time the MEMORY button is pressed, the images will be memorized in the order of A, B, C, D .
- ○ In case of memorizing an image on a memory page, select the previous page by pressing the MEMORY PAGE button. Then, press the MEMORY button to memorize the image. Example : Select page B to memorize an image in page C.

The various functions of this unit are set on the menu screens. Refer to pages 19 - 20 for setting this function.
Refer to page 49, "6.SYSTEM" on system setting menu.

Note

▶ An image may not be printed correctly when a VCR plays back in special effects playback mode (such as speed search) during printing. The special effects playback should not be made during printing.
To memorize and print the images of special playback mode, memorize the desired image first. Then, stop the special playback and start printing. Do not play back image in special playback mode after starting printing.

6. Printing Procedures (Basic prints)

2 Continuous printing

The desired number of memorized images can be printed continuously when the desired number is set before printing.
The number of prints can be changed during printing. The continuous printing also can be cancelled by setting the number of prints to 1 during printing.

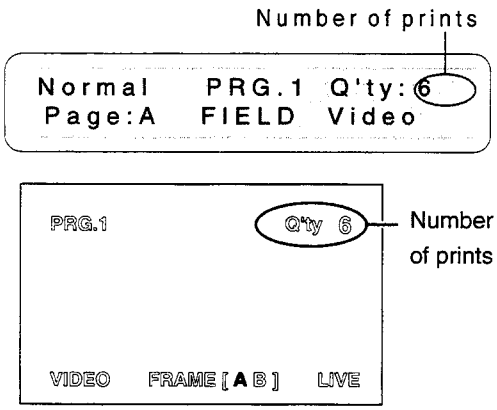
■ Setting the number of prints

Press the PRINT Q'TY buttons ▲+, ▼− to set the number of prints.

○ Press ▲+ button to increase and ▼− button to decrease the number.

○ The number of prints will be switched in the order of
1←→2 ← ....→ 9 ←→ 10 ←→20 ←→30←→40←→50←→100 ←→200 ←→ C ←→1
When "C" is selected, this unit continues printing until the print paper or ink sheet is used up.

○ The set number of prints is displayed on the monitor screen and LCD.
○ During continuous printing, whenever one sheet is printed, the set number is counted down.* The number is displayed on the monitor screen or LCD.
○ After the continuous printing is completed, the set value returns to "1".



* When "C" is selected, the number is not counted down.

■ Cancelling continuous printing

○ When cancelling continuous printing:

Ⓐ Cancelling after printing of an image is completed.

Press the PRINT Q'ty buttons ▼−, ▲+ to set the number of prints to 1.

○ After the image being printed is printed out correctly, the continuous printing is cancelled.

Ⓑ Cancelling before printing of an image is completed
Press the STOP button on the remote control.
○ The continuous printing is cancelled not completing the print, and the sheet comes out.

■ Changing the number of prints during printing

○ When changing the number of prints during printing:

❶ Press the PRINT Q'ty buttons ▼−, ▲+ to set the number of prints to 1.

❷ After the image being printed is printed out, press the PRINT Q'ty buttons ▲+, ▼− to change the number of prints.

Note :

● If blackish image is continuously printed, the internal temperature may rise and cause the unit to switch to a stand-by condition during printing.
An error message "OVER HEAT" is displayed on LCD or monitor screen.
In this case, wait until the error message goes off.
Continuous printing resumes when the temperature drops and error message goes off.

7. Setting the functions

Setting each function on the menu display.

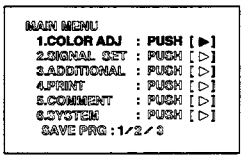
Menu display

There are 2 functions menus.

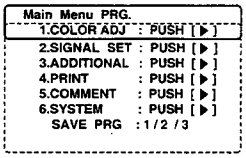
❶ **" MAIN MENU "** → **Sub menu**

❷ **" MEMORY SW MENU "** → **Sub menu**

❶ MAIN MENU is used to open the sub menu. Setting the following with the sub menu.
When selecting "SAVE PRG", the setting can be stored.



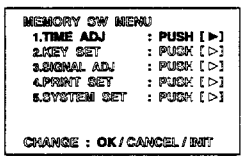
Monitor display



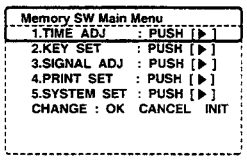
LCD display

1.COLOR ADJ ..... Adjust color of printing image
2.SIGNAL SET ..... Selecting the input signal, reverse of odd and even field lines, filter, etc.
3.ADDITIONAL ..... Setting the number of images in a print, strobe print, photo print
4. PRINT ..... Selecting paper size, comment printing method, Adjusting image outline, Adjusting print image density, mirror print (left/ right inversed)
5.COMMENT ..... Making a comment
6.SYSTEM ..... Setting print area and printing size, turn the memory page, switching output of the input signal
SAVE PRG ..... Storing the above setting in 3 kinds of memories.

❷ Memory SW MENU is used to open the sub menu.



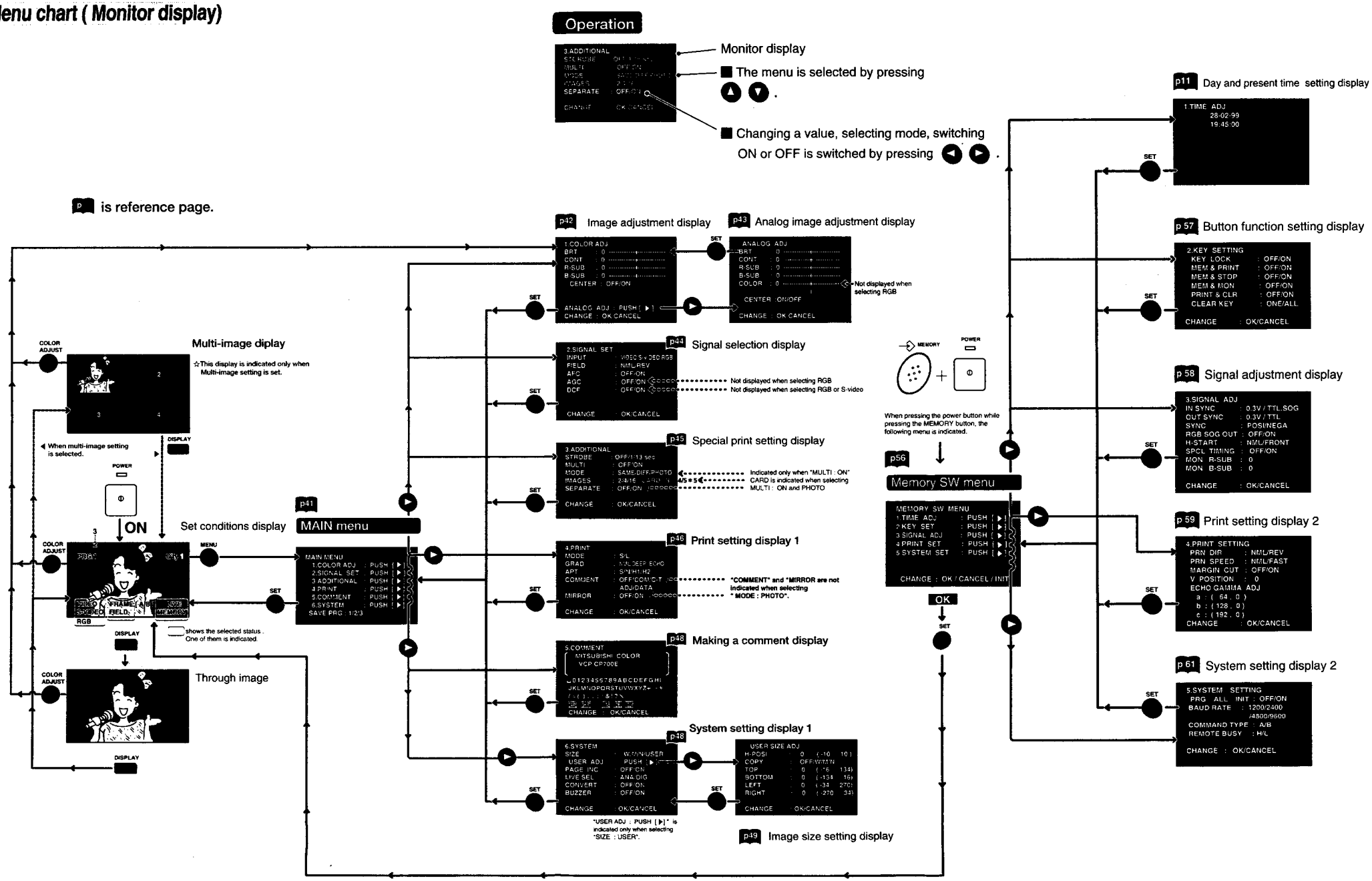
Monitor display



LCD display

1. TIME ADJ ..... Setting the date and present time
2. KEY SET ..... The function of button is invalid, setting the function of memory button
3. SIGNAL ADJ ..... Signal polarity, signal level, syncronized signal timming, Horizontal starting position Color adjustment of the image
4. PRINT SET ..... Print direction, printing speed, cutting position, Adjusting print image density
5. SYSTEM SET ..... Initializing user setting, Baud rate, RS-232C Command type, Remote busy

Menu chart (Monitor display)


Operation
Monitor display
■ The menu is selected by pressing ▲▼.
■ Changing a value, selecting mode, switching ON or OFF is switched by pressing ◀▶.
p is reference page.
Multi-image diplay
☆This display is indicated only when Multi-image setting is set.
When multi-image setting is selected.
DISPLAY
POWER
ON
Set conditions display
MAIN menu
shows the selected status . One of them is indicated.
Through image
p42 Image adjustment display
p43 Analog image adjustment display
Not displayed when selecting RGB
p44 Signal selection display
Not displayed when selecting RGB
Not displayed when selecting RGB or S-video
p45 Special print setting display
Indicated only when "MULTI : ON"
CARD is indicated when selecting MULTI : ON and PHOTO
p46 Print setting display 1
"COMMENT" and "MIRROR are not indicated when selecting " MODE : PHOTO".
p48 Making a comment display
System setting display 1
"USER ADJ : PUSH [▶]" is indicated only when selecting "SIZE : USER".
p49 Image size setting display
When pressing the power button while pressing the MEMORY button, the following menu is indicated.
p56
Memory SW menu
OK
p11 Day and present time setting display
p57 Button function setting display
p58 Signal adjustment display
p59 Print setting display 2
p61 System setting display 2

Operation

LCD display

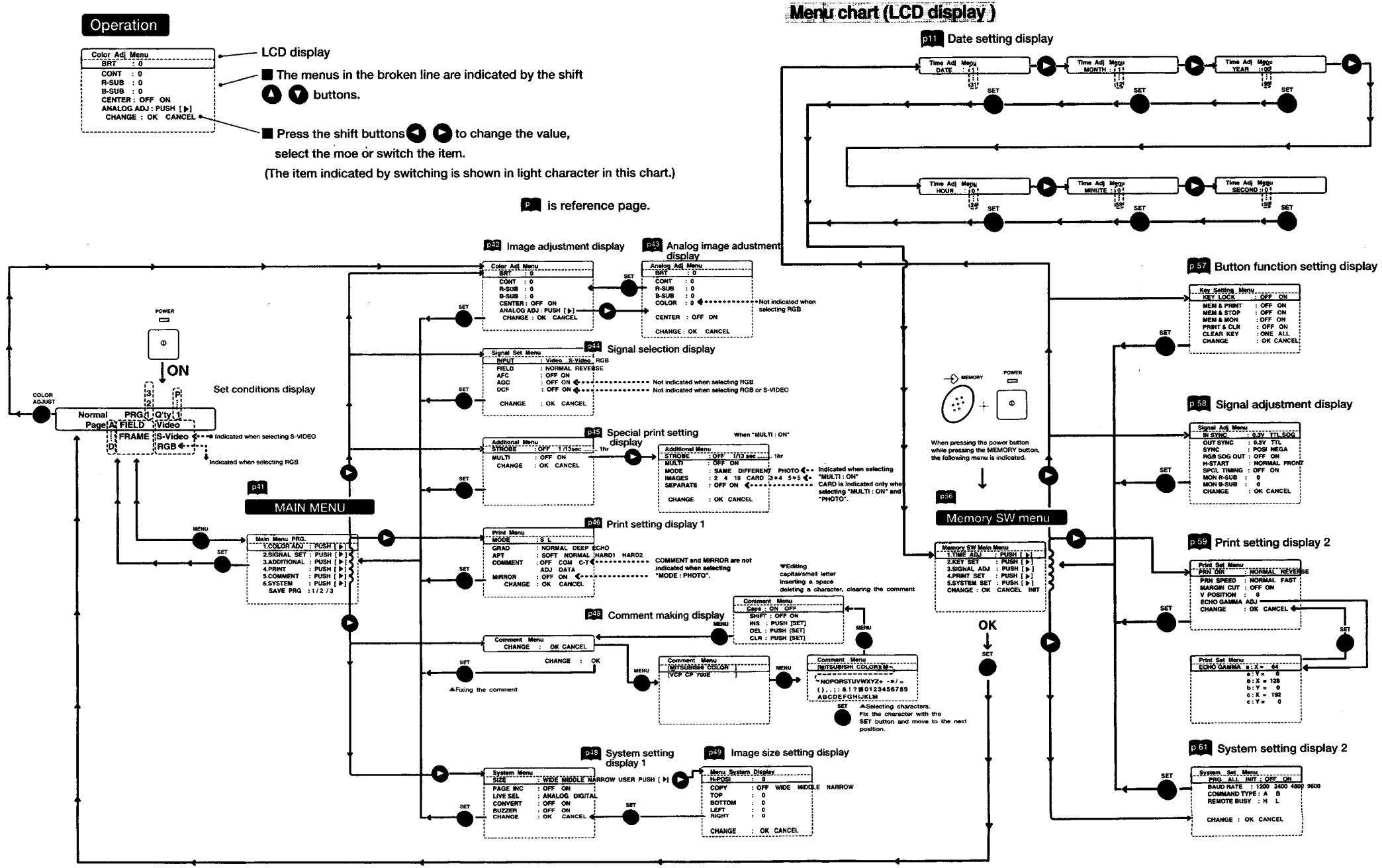
■ The menus in the broken line are indicated by the shift ▲ ▼ buttons.

■ Press the shift buttons ◀ ▶ to change the value, select the moe or switch the item.

(The item indicated by switching is shown in light character in this chart.)

P is reference page.

Menu chart (LCD display)


p11 Date setting display
Time Adj Menu DATE
Time Adj Menu MONTH
Time Adj Menu YEAR
Time Adj Menu HOUR
Time Adj Menu MINUTE
Time Adj Menu SECOND
SET
POWER
ON
Set conditions display
COLOR ADJUST
Normal Page PRG 1 Q'ty 1
FIELD Video
FRAME S-Video
RGB
Indicated when selecting S-VIDEO
Indicated when selecting RGB
p41 MAIN MENU
MENU
Main Menu PRG.
1.COLOR ADJ : PUSH [▶]
2.SIGNAL SET : PUSH [▶]
3.ADDITIONAL : PUSH [▶]
4.PRINT : PUSH [▶]
5.COMMENT : PUSH [▶]
6.SYSTEM : PUSH [▶]
SAVE PRG : 1/2/3
p42 Image adjustment display
Color Adj Menu
BRT : 0
CONT : 0
R-SUB : 0
B-SUB : 0
CENTER : OFF ON
ANALOG ADJ : PUSH [▶]
CHANGE : OK CANCEL
p43 Analog image adustment display
Analog Adj Menu
BRT : 0
CONT : 0
R-SUB : 0
B-SUB : 0
COLOR : 0
CENTER : OFF ON
CHANGE : OK CANCEL
Not indicated when selecting RGB
p44 Signal selection display
Signal Set Menu
INPUT : Video S-Video RGB
FIELD : NORMAL REVERSE
AFC : OFF ON
AGC : OFF ON
DCF : OFF ON
CHANGE : OK CANCEL
Not indicated when selecting RGB
Not indicated when selecting RGB or S-VIDEO
p45 Special print setting display
Additional Menu
STROBE : OFF 1/15sec
MULTI : OFF ON
CHANGE : OK CANCEL
When "MULTI : ON"
1hr
Additional Menu
STROBE : OFF 1/13 sec
MULTI : OFF ON
MODE : SAME DIFFERENT PHOTO
IMAGES : 2 4 16 CARD 3×4 5×5
SEPARATE : OFF ON
CHANGE : OK CANCEL
Indicated when selecting "MULTI : ON" CARD is indicated only when selecting "MULTI : ON" and "PHOTO".
p46 Print setting display 1
Print Menu
MODE : S L
GRAD : NORMAL DEEP ECHO
APT : SOFT NORMAL HARD1 HARD2
COMMENT : OFF COM C-T
ADJ DATA
MIRROR : OFF ON
CHANGE : OK CANCEL
COMMENT and MIRROR are not indicated when selecting "MODE : PHOTO".
p48 Comment making display
Comment Menu
CHANGE : OK CANCEL
CHANGE : OK
Fixing the comment
Comment Menu
Caps : ON OFF
SHIFT : OFF ON
INS : PUSH [SET]
DEL : PUSH [SET]
CLR : PUSH [SET]
Editing
capital/small letter
inserting a space
deleting a character, clearing the comment
Comment Menu
MITSUBISHI COLOR
VCP CP 700E
Comment Menu
MITSUBISHI COLOR
NOPQRSTUVWXYZ+ -=/ =
( ) . : ; ! ? 0123456789
ABCDEFGHIJKLM
Selecting characters. Fix the character with the SET button and move to the next position.
p48 System setting display 1
System Menu
SIZE : WIDE MIDDLE NARROW USER PUSH [▶]
PAGE INC : OFF ON
LIVE SEL : ANALOG DIGITAL
CONVERT : OFF ON
BUZZER : OFF ON
CHANGE : OK CANCEL
p49 Image size setting display
Menu System Display
H-POSI : 0
COPY : OFF WIDE MIDDLE NARROW
TOP : 0
BOTTOM : 0
LEFT : 0
RIGHT : 0
CHANGE : OK CANCEL
MEMORY
POWER
When pressing the power button while pressing the MEMORY button, the following menu is indicated.
p56 Memory SW menu
Memory SW Main Menu
1.TIME ADJ : PUSH [▶]
2.KEY SET : PUSH [▶]
3.SIGNAL ADJ : PUSH [▶]
4.PRINT SET : PUSH [▶]
5.SYSTEM SET : PUSH [▶]
CHANGE : OK CANCEL INIT
OK
p57 Button function setting display
Key Setting Menu
KEY LOCK : OFF ON
MEM & PRINT : OFF ON
MEM & STOP : OFF ON
MEM & MON : OFF ON
PRINT & CLR : OFF ON
CLEAR KEY : ONE ALL
CHANGE : OK CANCEL
p58 Signal adjustment display
Signal Adj Menu
IN SYNC : 0.3V TTL SOG
OUT SYNC : 0.3V TTL
SYNC : POSI MEGA
RGB SOG OUT : OFF ON
H-START : NORMAL FRONT
SPCL TIMING : OFF ON
MON R-SUB : 0
MON B-SUB : 0
CHANGE : OK CANCEL
p59 Print setting display 2
Print Set Menu
PRN DIR : NORMAL REVERSE
PRN SPEED : NORMAL FAST
MARGIN CUT : OFF ON
V POSITION : 0
ECHO GAMMA ADJ
CHANGE : OK CANCEL
Print Set Menu
ECHO GAMMA a : X = 64
a : Y = 0
b : X = 128
b : Y = 0
c : X = 192
c : Y = 0
p61 System setting display 2
System Set Menu
PRG ALL INIT : OFF ON
BAUD RATE : 1200 2400 4800 9600
COMMAND TYPE : A B
REMOTE BUSY : H L
CHANGE : OK CANCEL

■ Displaying menu screen

○ **All functions are operated with the remote control.**

❶ Main menu – sub menu display

○ Press the MENU (MENU) button to display Main menu.

❷ MEMORY SW MENU – sub menu display

○ Press the POWER button while pressing MEMORY button to display MEMORY SW menu.
○ Make sure to turn the POWER OFF before the above operation.

■ Displaying the sub menu

○ Select the sub menu for each function setting to display from MEMORY SW MENU or MAIN MENU.

❶ Press the UP or DOWN shift button to select the menu.

```
Memory SW Main Menu
 2.KEY SET  :PUSH[>]
```

```
MEMORY SW MENU
 1.TIME ADJ      : PUSH [▷]
 2.KEY SET       : PUSH [▶]
 3.SIGNAL ADJ    : PUSH [▷]
 4.PRINT SET     : PUSH [▷]
 5.SYSTEM SET    : PUSH [▷]

CHANGE : OK / CANCEL / INIT
```

❷ Press the RIGHT shift button to display the sub menu of the item selected.

```
Key Setting Menu
 KEY LOCK    :OFF
```

```
2.KEY SETTING
 KEY LOCK    : OFF/ON
 MEM&PRINT   : OFF/ON
 MEM&STOP    : OFF/ON
 MEM&MON     : OFF/ON
 PRINT&CLR   : OFF/ON
 CLEAR KEY   : ONE/ALL

 CHANGE: OK/CANCEL
```

■ Procedure for selecting and setting the menu

❶ Press the UP or DOWN shift button to select the menu.

```
Key Setting Menu
 MEM  &  STOP :OFF
```

```
2.KEY SETTING
 KEY LOCK    : OFF/ON
 MEM&PRINT   : OFF/ON
 MEM&STOP    : OFF/ON
 MEM&MON     : OFF/ON
 PRINT&CLR   : OFF/ON
 CLEAR KEY   : ONE/ALL

 CHANGE: OK/CANCEL
```

❷ Press the RIGHT or LEFT shift button to select the item or change the value.

```
Key Setting Menu
 MEM  &  STOP :ON
```

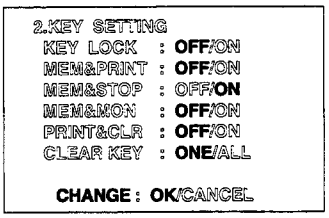
```
2.KEY SETTING
 KEY LOCK    : OFF/ON
 MEM&PRINT   : OFF/ON
 MEM&STOP    : OFF/ON
 MEM&MON     : OFF/ON
 PRINT&CLR   : OFF/ON
 CLEAR KEY   : ONE/ALL

 CHANGE: OK/CANCEL
```

7. Setting the functions

❸ Press the SET button.

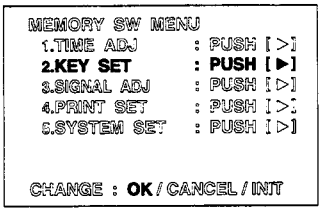
○ " CHANGE : OK/CANCEL " is selected.



○ Select "OK" to close the menu. Select "CANCEL" to cancel the setting again by the RIGHT or LEFT button.

❹ Press the SET button.

○ The function is set and the Main menu display or Memory SW menu is shown.



❺ Press the SET button.

○ In the Main menu, "SAVE PRG 1/2/3" is selected.
Store the setting of function on the sub menu 1-6 to program 1.2 and 3. (Refer to "SAVE PRG".)

○ In the Memory SW menu, "CHANGE : OK/ CANCEL" is selected. When closing the menu, select "OK" by pressing the RIGHT or LEFT button.

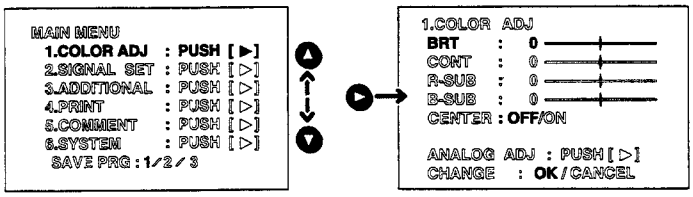
❻ Press the SET button.

○ The function is set and the source image is shown.

Function

1 MAIN MENU

Open the sub-menu from Memory menu.


MAIN MENU
1.COLOR ADJ : PUSH [▶]
2.SIGNAL SET : PUSH [▷]
3.ADDITIONAL : PUSH [▷]
4.PRINT : PUSH [▷]
5.COMMENT : PUSH [▷]
6.SYSTEM : PUSH [▷]
SAVE PRG : 1/2/3
1.COLOR ADJ
BRT : 0
CONT : 0
R-SUB : 0
B-SUB : 0
CENTER : OFF/ON
ANALOG ADJ : PUSH [▷]
CHANGE : OK / CANCEL

e.g. Monitor display 1. COLOR ADJ → BRT

■ Items and setting displayed are shown below.

1.COLOR ADJ ..... Adjust color of printing image
2.SIGNAL SET ..... Selecting the input signal, reverse of odd and even field lines, filter,etc.
3.ADDITIONAL ..... Setting the number of images in a print. strobe print, photo print
4. PRINT..... Selecting comment printing method, Adjusting image outline, Adjusting print image density mirror print (left/ right inversed)
5.COMMENT ..... Making a comment
6.SYSTEM ..... Setting print area and print size, turn the memory page, switching output of the input signal
SAVE PRG ..... Storing the above setting in 3 kind of memories.

SAVE PRG

This menu is shown in the lowest position on the " MAIN MENU " .

Function ▶ Storing the setting value on the menu 1-6.

▶ Store the setting of function on the sub menu 1-6 to program 1,2 and 3.

operation ▶ The function is set and then MAIN MENU is displayed.

1. Press the SET button (SET) .

- " SAVE PRG " is displayed on the LCD display indicated in blue.

2. Press the RIGHT ▶ or LEFT ◀ button to select the memory bank number 1, 2 or 3.

3. Press the SET (SET) button to store the setting to the selected program number.

○ The set conditions display and the source image are displayed.
○ Program is overlaid, recommend that the previous program number is not selected in step 2.
○ Press the program button to select the memory 1,2, or 3 . The display according to each setting is displayed. The setting cannot be changed during printing.
○The image can be printed according to the selected memory program.

7. Setting the functions (Main menu)

❶ COLOR ADJ Adjusting the color of the image

○ With this menu, the color of the source image and memorized image can be adjusted.

○ This menu is also displayed by pressing color ADJUST (COLOR ADJUST) button.

BRT (Bright)

Function ▶ Adjust the brightness of printing image.

CONT (Contrast)

Function ▶ Adjust the contrast of printing image

R-SUB (Red-subcontrast)

Funciton ▶ Adjust the red-subcontrast of printing image

B-SUB (Blue-subcontrast)

Function ▶ Adjust the blue-subcontrast of printing image

○ **The each function and setting area is as follows.**

display	adjusting	- 64	adjusting area	+ 63
BRT	Brightness	Darker		Brighter

display	adjusting	- 32	adjusting area	+ 31
CONT	Contrast	Less contrast		More contrast
R-SUB	Red-subcontrast	Add cyan		Add red
B-SUB	Blue-subcontrast	Add yellow		Add blue

CENTER

Function ▶ Each function setting value is initialized with the " COLOR ADJ " .

▶ When CENTER is set to " ON " , the setting value of BRT, CONT, R-SUB and B-SUB is reset to "0".

ANALOG ADJ (Analog Adjust)

Funciton ▶ Image adjustment menu of analog input signal is displayed.

▶ When pressing RIGHT button , "7.ANALOG ADJ " menu is displayed.

ANALOG ADJ The adjustment image of analog input signal display

○ This menu is used to adjust the image of analog input signal display before storing in the memory.

○ This menu is opened when pressing RIGHT ▶ button on "ANALOG ADJ : PUSH [▶] ".

○ When selecting RGB analog signal, "COLOR" "TINT" is not adjusted and displayed.

BRT (Bright)

Function ▶ Adjust the brightness of printing image.

CONT (Contrast)

Function ▶ Adjust the contrast of printing image.

R-SUB (Red-subcontrast)

Function ▶ Adjust the red-subcontrast of printing image.

B-SUB(Blue-subcontrast)

Function ▶ Adjust the blue-subcontrast of printing image.

COLOR

Function ▶ Adjust the color of printing image

○ **The each function and setting area is as follows.**

Item	Adjustment	-32 Adjusting area +31
BRT	Brightness	Darker ..... Brighter
CONT	Contrast	Less contrast ..... More contrast
R-SUB	Red-subcontrast	Add cyan ..... Add red
B-SUB	Blue-subcontrast	Add yellow ..... Add blue
COLOR	Color	Light ..... Deep

• When selecting the RGB signal, COLOR is not shown on the monitor display.

CENTER

Function ▶ The setting value of" COLOR ADJ " is initialized.

▶ When this function is set to " ON " , the setting value of BRT, CONT, R-SUB , B-SUB, COLOR is reset to 0.

○ When pressing the SET (SET) button after selecting " OK " on the lower position" CHANGE : OK/CANCEL, "1.COLOR ADJ " menu is displayed.

7. Setting the functions (Main menu)

❷ SIGNAL SET Signal selecting menu

INPUT

Function ▶ Select the signal from inputting signal on the rear panel.

VIDEO ..... Signal from VIDEO input terminal
S -VIDEO ..... Signal from S-VIDEO input terminal
RGB ..... Signal from RGB input terminal

FIELD

Function ▶ The odd even field lines will be reversed depending on the input interlaced signal.

▶ Printing image is not clear so that the odd and even field lines may be reversed depending on the input interlaced signal. In this case, FIELD is set to " REV " .

▶ The image status cannot be checked on the monitor display.

NML(Normal) ..... Not reversed
REV(Reverse) ..... Reversed the field lines.

AFC

Function ▶ Automatic frequency control

▶ This function is to automatically correct the image of a weak signal or in VCR special playback . If the image is not printed correctly because of a weak TV signal, set the AFC function to "ON".

○ The image distortion on the top may occur when the VCR image is input in pause, field-by-field playback, or FF playback mode. In this case, AFC function is set to "OFF".

ON ..... AFC available
OFF ..... AFC invalid

▲This function menu is not displayed and invalid when selecting " FRONT " on "3 .SIGNAL ADJ → H-START : NML/FRONT" in MEMORY SW menu.

AGC

Function ▶ Automatic gain control (Making the image brighter and stressing the contrast.)

▶ This function is to automatically adjust a dark picture in brightness and prints with sharp contrast. Peak level of an input signal is detected and signals width is standardized to the appropriate value.

ON ..... AGC is available
OFF ..... AGC is invalid

▲ This function is not displayed when selecting RGB signal.

DCF

Function ▶ Select whether separating the composite video signal or not.

▶ When inputting the monochrome signal, this function is set to OFF.
This function is for high quality of monochrome image so that input signal is not though DCF curcuit.

▶ When inputting the color signal, this function is set to "ON". Input signal is through DCF circuit and the composite video signal is separated.

ON ..... when inputting color signal
OFF ..... when inputting monochrome signal

▲This function is invalid in RGB or S-VIDEO input signal.

Note: When "DCF" is set to "OFF", the letter may not be colored on the monitor display.

❸ ADDITIONAL Special print setting

STROBE

Function ▶ This function is to repeat storing the image in the memory according to selected the time interval.

▶ When MULTI is set to "ON", the image is stored in order of image number .

▶ When MULTI is set to"OFF", every one image is stored in the memory.

• The image is stored in the memory every time as shown below.

○ 1/13 sec → 1/5 sec → 1/2.5 sec → 1 sec →2 sec →5sec→10 sec →30 sec ..... every second

○ 1 min → 2 min → 5min →10min →30 min ..... every minutes

○ 1hr ..... every hour

○ Pressing the LEFT ▶ button to select the interval.

○ The image is automatically printed after storing the image in the memory when " MEM&PRINT " function is set to " ON" on " MEMORY SW MENU " → " KEY SETTING " menu.

Note: The monitor display may not be correctly shown when setting the time interval to lower value.

MULTI

Function ▶ Switching the multi-image print

ON ..... Multi-image prints are available

OFF ..... Multi-image prints are not available

▶ Set the number of images (2,4,16 image) in a print.

Set the number of images in a print and the size with MULTI, MODE, IMAGES, and SEPARATE menus.

▶ Refer to pages 59-69 for multi-image print.

MODE

Function ▶ Setting the print mode

SAME ..... Print the image of the same scenes in a print.

DIFF (Different) ..... Print the image of the different scenes in a print.

PHOTO ..... Portrait-like print

•When "MULTI" is set to "ON", this function is displayed.

IMAGES

Function ▶ Selecting the number of image

▶ "IMAGES" menu is changed depending on selecting the "MODE" function.

•When "MULTI" is set to "ON", this function is displayed.

When selecting "SAME" or "DIFF" in the "MODE" function

2 .....2-images in a print

4 .....4-images in a print

16 .....16-images in a print

When selecting "PHOTO" in the "MODE" menu

CARD.....16-multi images in a print (1.5 x 2.0cm size image)

3*4 .....4-multi images in a print (3.0 x 4.0cm size image)

5*5 .....2-multi images in a print (5.0 x 5.0cm size image)

SEPARATE

Function ▶ Switching the white frame

▶ Separate the each image in multi-image print with white frame

ON ..... White frame print
OFF ..... Normal print

• When "MULTI" is set to "ON", this function is displayed.

❹ PRINT Print setting 1

MODE

Function ▶ Selecting the paper size

▶ Selecting the paper size depending on the installed the ink sheet.

S .....S-size ink-sheet (model: PK700S)
L .....L-size ink-sheet (model: PK700L)

• When installing L-size ink sheet or monochrome ink sheet and selecting "S", the image can be printed on S-size. Also the number of prints is as follows.

Ink sheet \ Print mode	S	L
S	S size print (200 sheet)	S size print (200 sheet)
L	S size print (125 sheet)	L size print (125 sheet)

• When S size ink sheet is set, S-size printing is made even if "L" is selected in print mode.

GRAD (Gradation)

Function ▶ Change the gamma curve of the image

▶ Selecting the gamma curve from 3 types

NML ..... Normal
DEEP ..... Deep
ECHO..... The gamma curve is set according to medical equipment.

○ If changing the setting value of gamma in ECHO, the value is able to change in " ECHO GAMMA ADJ " on " MEMORY SW MENU "→ " PRINT SETTING " menu.
The setting value in the " ECHO GAMMA ADJ " on the print setting menu is applied to "ECHO".
Refer to page 62.

APT

Function ▶ Adjusting image outline.

▶ This function is to control aperture and to reinforce or soften the contour.

SOFT [S] ..... Soften the contour
NML [N] ..... Do not perform APT
HARD [H1] ..... Reinforce the contour
HARD [H2] ..... More reinforce the contour

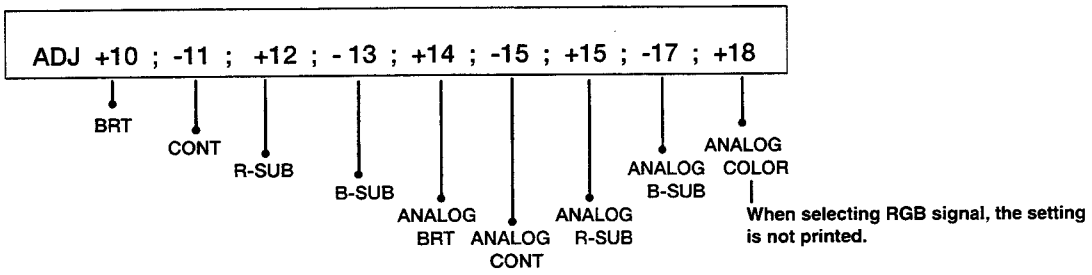
COMMENT

Function ▶ Selecting the comment

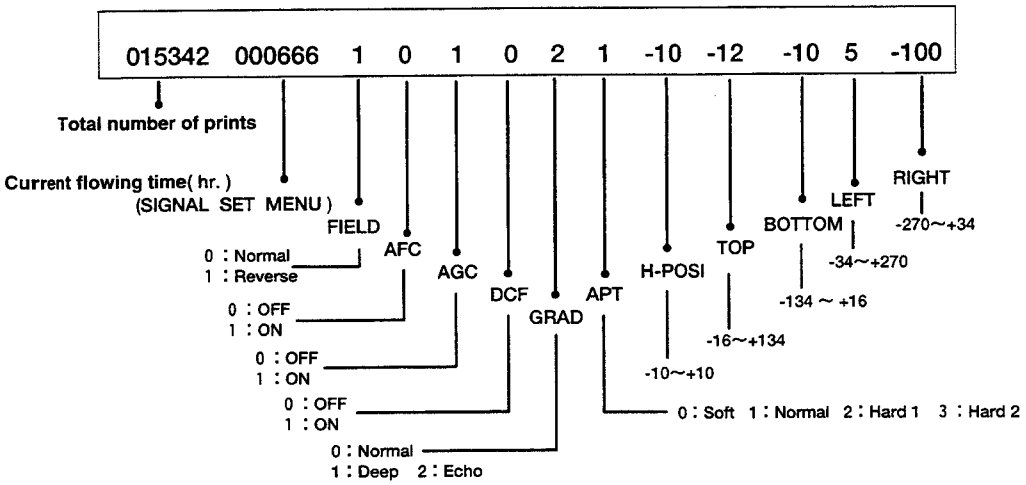
▶ Selecting the comment on printing from 4 types.

OFF ..... Comment is not printed.
COM ..... Printing the made comment
C-T ..... Printing the made comment and the time and date when the image is stored in memory. The day and time is overlaid on comment. In this case, all the made comment may not be printed.)
ADJ ..... Printing the setting value in the " 1.COLOR ADJ " menu.
DATA ..... Printing the number of prints, the time of current flowing, field line, filter or image size etc..

○When selecting "ADJ", the following information is printed.



○When selecting "DATA", the following information is printed.



○When selecting "ON" in "3. ADDITIONAL MULTI" function and "2", "4" or "16" in "IMAGE" function, " ADJ" and " DATA" of the last memory image is printed.

MIRROR

Function ▶ Selecting mirror (left/right inversed) prints

ON ..... Mirror print (The left/light inversed image can be printed.)
OFF ..... Normal print

7. Setting the functions (Main menu)

❺ COMMENT Making a comment

Function ▶ Making a comment on print

▶ Refer to pages 50-55 for details.

❻ SYSTEM System setting 2

SIZE

Function ▶ Selecting a print area of printing image

▶ Selecting the print size and user print size setting

	Picture element	printing size (S size)	(L size)
W	1216 X 600 dot	100 X 75 mm	130 X 98 mm
M	1148 X 568 dot	94 X 70 mm	123 X 92 mm
N	1104 X 544 dot	92 X 69 mm	120 X 90 mm
USER	user can set print size		

• The image is not correctly printed depending on printing size.

USER ADJ (User Adjustment)

Function ▶ This menu is to display USER SIZE ADJ menu.

▶ Press the RIGHT ▶ shift button to display USER SIZE ADJ menu .

" CHANGE : OK/CANCEL "is displayed on the lower position.

When selecting" OK " and pressing SET button, SYSTEM menu is displayed.

Note: When "H-POSI" is shifted to the minus direction at W (WIDE), the monitor screen may get darker.

PAGE INC (Page Increment)

Function ▶ Turn the memory page automatically.

▶ Each time the MEMORY button is pressed, the memory page is turned automatically and the image is stored in the memory on its page.

ON ..... This function is available.
OFF ..... This function is not available.

LIVE SEL (Live Select)

Function ▶ Switching the monitor display of input signal.

▶ This is a function to select whether the image inputted is displayed as it is or the image adjusted its image and quality by the unit is displayed.

ANA (Analog) ..... The image inputted is displayed as it is.
DIG (Digital) ..... The image adjusted its image and quality is displayed.

Note: If the characters of character generater is displayed on the monitor screen by setting "DISPLAY" to ON, the source image is displayed even if "ANA" is selected.

CONVERT

Function ▶ This function is to output the selected input signal in the "INPUT SEL" function on" 2. SIGNAL SET" menu to the VIDEO/RGB/S-VIDEO output terminal

ON ..... Output the selected input signal to the VIDEO/RGB/S-VIDEO output terminal

OFF ..... Output the signal from the input terminal to the same names as the input terminal .

Note: When the selected signal is remarkably different from the standard signal in timing, the signal may not be converted correctly at output.

BUZZER

Function ▶ Sounds the buzzer

▶ The buzzer sounds when one of the control buttons is pressed, so that the setting can be checked.

ON ..... Sounds the buzzer

OFF ..... Does not sound the buzzer

■ USER SIZE ADJ Setting the image size

The printing area can be changed and stored in memory as a user setting.

▶ When selecting " USER ADJ " on the "6.SYSTEM "menu . Press the RIGHT shift button, USER SIZE ADJ menu is displayed.

When pressing the SET button after setting, " CHANGE : OK/CANCEL " is selected.

• When selecting " OK " and pressing the SET button, SYSTEM menu is displayed.

H-POSI

Function ▶ Change the horizontal start position of input signal.

▶ Move the image by changing the horizontal position setting area -10 +10.

▶ When special setting is set to "ON" in Memory SW menu, the setting area of H-POSI is - 65 +10.

• As the value is decreasing to the minus limit, the switching between memorized image and source image may be impossible during printing.

COPY

Function ▶ Copy "SIZE" in the " 6.SYSTEM" menu.

▶ Copy an image size set at W, M, N in the "6.SYSTEM" menu.

The selected value is displayed from TOP,BOTTOM , LEFT and RIGHT .

The value is the basis of change.

7. Setting the functions (Making a comment)

TOP/BOTTOM/LEFT/RIGHT

Function ▶ Setting the print area

▶ By adjusting print area, the image size to be printed can be limited. Printing area adjustment can be operated with the setting menu on the screen.

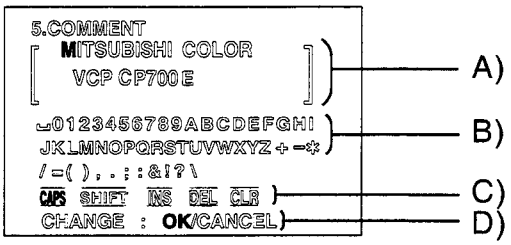
TOP ..... Top adjustment (setting area -16 +134)
BOTTOM ..... Bottom adjustment (setting area -134 +16)
LEFT ..... Left adjustment (setting area -34 +270)
RIGHT ..... Right adjustment (setting area -270 +34)

○Select "OK" on "CHANGE : OK/CANCEL " and press the SET (SET) button, then, "6.SYSTEM "menu is displayed.

Making a comment

Select the making a comment menu "COMMENT".
This functions are operated with the remote control using the menus displayed on the monitor screen.

Explanation



○ Listed below are the four comment displays.

A) Comment display block..... Inputted letter is displayed , Setting the input position
B) Character block..... Inputting the character block, Selecting the letter from character block

C) Editing or selecting block ..... Caps letter, small caps letter selecting, selecting the special letter mode, Insert the space, delete a letter or clear the comment
D) CHANGE : OK/CANCEL ..... A block to fix the set comment :
When fixing the comment, select "OK" .
When the comment is not set and inputting or changing a letter or changing, select " CANCEL" .

○ Press the MENU (MENU) button to select the desired block.

○ The desired function is set on the block.

Remote control function on the comment display

Menu button MENU ..... Selecting 4 blocks on the comment menu

A) Comment display block
B) Character block
C) Editing mode selecting mode
D) CHANGE : OK/CANCEL

○ When pressing "MENU"button, the blocks will be switched in order of A→B→C→D→A...

Shift button ▲, ▼, ▶, ◀ ..... Use these button by the following operation

a) Comment display block..... Selecting the position to insert the comment
b) Character block ..... Selecting the letter on the character block
c) Editor selecting mode block ..... Inputting the alphabet, Inputting mark and special letter, Insert a space, delete a letter, clear the whole comment

SET button SET .....Use these button by the following operation

○ Insert the letter on the character code

○ Switching the capital letter and small letter in the editor selecting mode

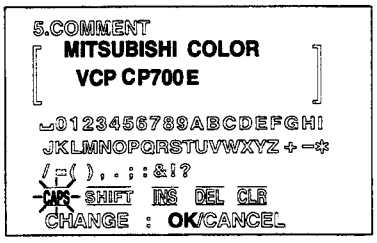
○ Switching the mark and special letters on the character mode.

○ When selecting "OK" on "CHANGE : OK/CANCEL" and press the SET , " MAIN MENU " menu display is shown.

Menu display

Selecting block

○ Each time the MENU button is pressed , the selecting block is switched.



A) The selected block is displayed in green. The letter being selected is turned on or off in red.
B) The selected character block is displayed in green. The letter being selected is turned on or off in red.
C) The selected command in the editing selection mode block is turned on or off .

7. Setting the functions (Making a comment)

■ Editing command

○ Selecting each commad in editing mode by pressing RIGHT ▶ or LEFT ◀ shift button.

The letter inputting command

CAPS (Capital Letters) ..... Capital letters / small letters

○When the SET button is pressed after selecting capital or small letter by pressing ▶ , ◀ button, the character block is switched in order of capital letters→small letters → capital letters....

○"CAPS" is turned on and off indicated in red while selecting the capital letter.

○"CAPS" is turned on and off indicated in green while selecting the small caps letter.

○When pressing the SET (SET) button after selecting "SHIFT", the special letters are displayed on the character block.

Editing command

INS (Insert) ..... Insert a space

○ When pressing the SET (SET) button after selecting "INS" by ▶ or ◀ button, a space is inserted on the preceding to the character indicated in red .

DEL (Delete) ..... Delete a letter

○ When pressing the SET (SET) button after selecting "DEL" by ▶ or ◀ button, a letter indicated in red is deleted.

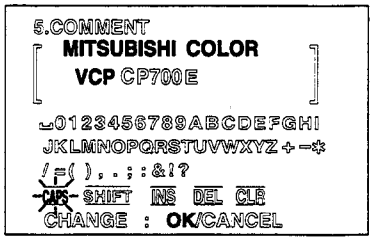
CLR (Clear) ..... Clear the whole comment

○ When pressing the SET (SET) button after selecting "CLR" by ▶ or ◀ button, the whole comment is cleared.

□ Comment making procedure

■ Input mode selecting CAPS (capital letters/ small letters) / SHIFT (special letters)

❶ Press the MENU (MENU) button to select the command editing block.



○ The selected command is turned on or off in red.

■ Select the "CAPS" by pressing the RIGHT ▶ or LEFT ◀ shift button.

○ The selected mode is turned on or off in red.

○ Selecting " CAPS " → Press the SET (SET) button → Small letters → Press the SET (SET) button → Capital letters → Press the SET (SET) button

■ Select the "SHIFT" by pressing the RIGHT ▶ or LEFT ◀ shift button.

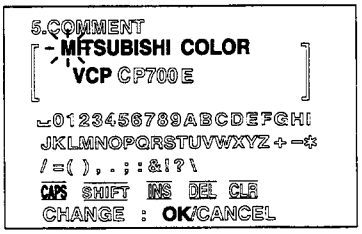
○ The special letter is shown.

■ Inputting the letter

Selecting comment block

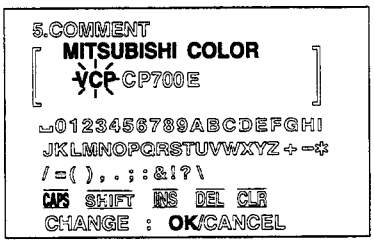
❶ Press the MENU button to select comment display block.

○ The selected block is displayed in green.



❷ Press the shift button ▲, ▼, ▶, ◀ to select the inputting letter position.

○ Selected letter position is turned on or off in red.

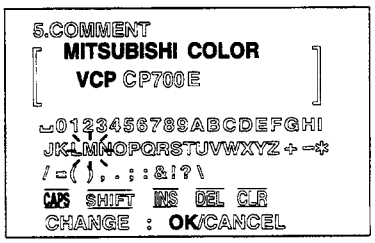


Selecting characters block

❸ Press the MENU button to select the character block.

○ Selected block is displayed in green.

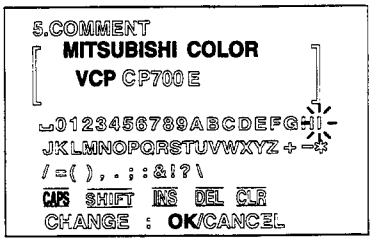
○ Selected letter is turned on or off in red.



Setting

❹ Press the shift button ▲, ▼, ▶, ◀ to select the inputting letter .

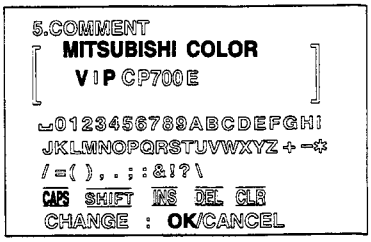
○ Selected letter is turned on or off in red.



❺ Press the SET button.

○ The letter is inputted on comment display.

○ The letter position moves to the right on the comment display.



❻ Repeat the selecting a letter → setting steps to make a commnet.

7. Setting the functions (Making a comment)

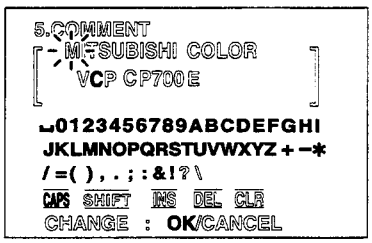
■ Inserting a space / deleting a character / Clearing the whole comment

Insert a space, delete a character or clear the whole comment by the following prcedure.

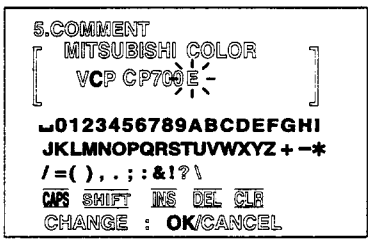
(e.g.) In case of deleting "E " .

❶ Press the MENU button to select comment display block.

○ The selected block is displayed in green.

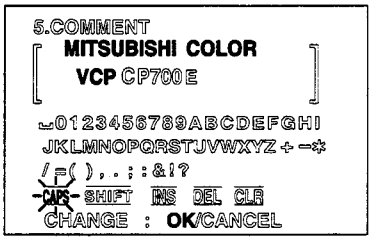


❷ Press the shift button ▲, ▼, ▶, ◀ to select the deleting position.

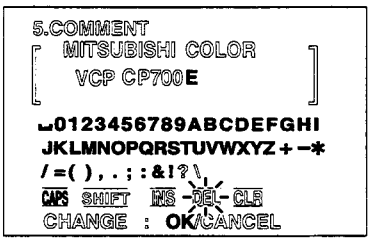


❸ Press the MENU button to select editor command block.

○ The selected block is displayed in green.

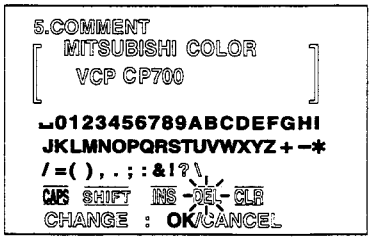


❹ Press the shift button ▲, ▼, ▶, ◀ to select "DEL" .



❺ Press the SET button

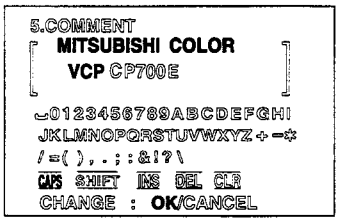
○ The selected command is executed.



■ Close the comment menu

❶ Press the MENU button to select " CHANGE : OK/CANCEL" .

○ " CHANGE " is displayed in blue.

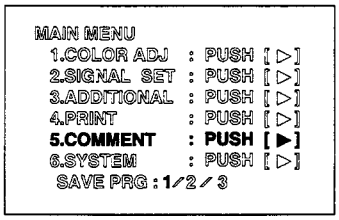


❷ Press the shift ◀ button to select "OK" .

○In case of changing a comment , select the "CANCEL".

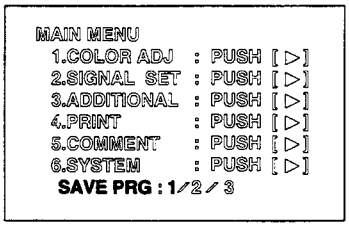
❸ Press the SET button.

○ " MAIN MENU " display is shown.



❹ Press the SET button.

○ " SAVE PRG 1/2/3 " is selected.



Note: Only one comment can be set among program 1, 2 and 3.

❺ Press the SET button.

○ The made comment is stored in the memory.

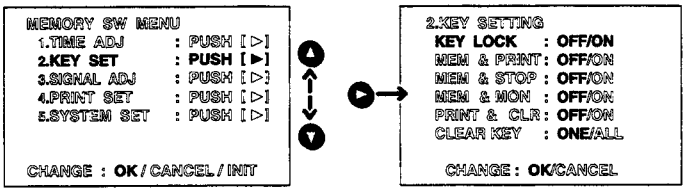
○ Source image display is shown.

7. Setting the functions (Memory SW menu)

SETTING FUNCTIONS

2 MEMORY SW MENU

When pressing the POWER button while pressing the MEMORY button on the front panel with the the POWER turned off the MEMORY SW MENU is displayed.


MEMORY SW MENU
1.TIME ADJ : PUSH [▷]
2.KEY SET : PUSH [▶]
3.SIGNAL ADJ : PUSH [▷]
4.PRINT SET : PUSH [▷]
5.SYSTEM SET : PUSH [▷]
CHANGE : OK / CANCEL / INIT
2.KEY SETTING
KEY LOCK : OFF/ON
MEM & PRINT : OFF/ON
MEM & STOP : OFF/ON
MEM & MON : OFF/ON
PRINT & CLR : OFF/ON
CLEAR KEY : ONE/ALL
CHANGE : OK/CANCEL

(e.g.) Monitor display: MEMORY SW MENU → KEY SET → KEY LOCK

■ Item and setting are as shown below.

1.TIME ADJ ..... Date / Present time

2. KEY SET ..... Invalid the buttons' function, Memory button function

3. SIGNAL ADJ ..... Signal polality, Signal level , Sync.signal, Signal timing , Horizontal signal starting position , Color of printing image

4. PRINT SET ..... Printing direction , Printing speed, Paper cutting position , Gamma setting

5. SYSTEM SET ..... Initializing the user setting , Baud rate

CHANGE : OK / CANCEL/ INIT..... Complete, cancel or initialize the setting of the above function

CHANGE : OK /CANCEL/ INIT

This menu is shown in the lowest position on the "MEMORY SW MENU".

▶ Selecting "OK", "CANCEL". "INIT (Initialize) " on the setting value of the menu 1-5.

▶ Close the menu 1- 5 and normal display is shown.

❶ Press the SET (SET) button.

○ " CHANGE " is indicated in blue.

❷ Press the shift ◀ or ▶ button to select "OK" , "CANCEL" or "INIT" .

○In case of changing a comment , select "CANCEL"

OK ..... Fix the setting and normal display is shown.

CANCEL ..... Cancel the setting and MEMORY SW menu display is shown.

INIT ..... Initialize the setting of MEMORY SW memu.

❸ Press the SET (SET) button.

○ The selected command is executed.

❶ TIME ADJ Setting the day and present time

TIME ADJ (Time Adjust)

Function ▶ Setting the day and present time.

▶ Refer to pages 11-13 for setting.

❷ KEY SET Setting the buttons' function

KEY LOCK

Function ▶ The function on the remote control buttons and all of the buttons of the unit except POWER button are not available.

ON ..... The function on the remote control buttons except MEMORY, PRINT, MONITOR, MEMORY PAGE are not available.

OFF ..... All of the buttons on the remote control are available.

MEM & PRN (Memory and Print)

Function ▶ When pressing the MEMORY button, the image is automatically printed after the image is stored in the memory. In the case of multi-image of different scenes, printing is excuted after the last image is stored in the memory.

ON ..... Storing the image and automatically printing

OFF ..... The MEMORY button functions individually. The image memorized without being printed.

MEM & STOP (Memory and Stop)

Function ▶ When setting to "ON", the next image is not overlaid in the memory after the last image is stored in the memory .

ON ..... The image is not overlaid in the memory.

OFF ..... The next image is stored in the memory.

▶ When setting to "ON ", the image is stored in the memory again by pressing the PRINT or CLEAR button.

MEM & MON (Memory and Monitor)

Function ▶ Switching the monitor display to the source image or memory image.

ON ..... Display the memory image.

OFF ..... Display the source image.

PRINT & CLR (Print and Clear)

Function ▶ After printing, the printed memory image is cleared.

ON ..... Clear the printed memory image.

OFF ..... Does not clear the printed memory image.

Note: Do not set the number of prints two or more. Because the memorized image will clear after printing the first sheet and there will be no print on the paper.

CLEAR KEY (Memory and Clear)

Function ▶ Setting the CLEAR button function on the remote control.

ONE ..... Pressing the CLEAR button on the remote control, the memorized image being selected is cleared.

ALL ..... Pressing the CLEAR button on the remote control, all of the stored memorized images are cleared.

❸ SIGNAL ADJ Signal setting display

IN SYNC

Function ▶ Selecting the level of input sync.signal.

0.3 V ..... Composite Sync. of 0.3Vp-p level

TTL. SOG ..... Composite Sync. of TTL level or Sync. On. G

▶ Set the function according to inputting signal.

OUT SYNC

Function ▶ Selecting the level of output Composite Sync. signal of RGB signal.

0.3V ..... 0.3 Vp-p

TTL ..... TTL level

▶ Set the function according to connecting monitor.

SYNC

Function ▶ Select the polarity of output H+V Sync. of RGB signal.

POSI ..... Positive polarity

NEGA ..... Negative polarity

▶ Set the polarity according to the signal of the connecting device.

Refer to the manual of connecting device.

RGB SOG OUT

Function ▶ Select the sync. signal of RGB analog output terminal.

OFF..... Composite Sync. signal output

ON..... Sync. On.Green + Composite Sync. signal output

▶ This is the function to switch between sending and not sending Sync. On Green signal on the output signal.

When set to "ON", Sync. On Green and Composite Sync. signals are output. When set to "OFF". only Composite Sync. signal is output.

Set the function according to connecting monitor.

H -START (H - Position)

Function ▶ Adjust the H-position timing for the special signal .

NML (Normal) ..... Inputting NTSC signal
FRONT ..... Inputting the special signal

▶ When the image is imbalanced and cannot be corrected by H-POSI on basic printing, set to " FRONT " .

When setting to "FRONT " , the printing image may distored in the special playback of VCR because "AFC " (" MAIN MENU " → " 2. SIGNAL SET ") is invalid.

SPCL TIMING (Special Timing)

Function ▶ Enlarge the setting area of H-POSI (MAIN MENU → SIGNAL SET , USER SIZE ADJ).

ON ..... Enlarge the setting area
OFF ..... Initial setting

▶ When inputting the signal except NTSC , the image cannot be moved to desired position in H-POSI of initial setting. If this function is set to " ON ", the image can move to right and left direction beyond the initial setting.

▶ When setting to " ON ", the next image may not be stored in the memory during printing.

MONITOR ADJ (Monitor Adjust)

Function ▶ Adjusting the color of image on the monitor.

(This adjustment is invalid on printing.)

MON R-SUB ..... Adjusting the red-sub contrast
MON B-SUB ..... Adjusting the blue-sub contrast

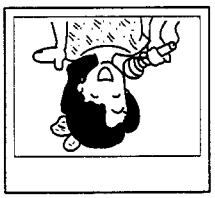
Item	Adjustment	-32	Adjusting area	+31
R-SUB	Red-subcontrast	add cyan		add red
B-SUB	Blue-subcontrast	add yellow		add blue

❹ PRINT SET Print setting 2

PRN DIR (Print Direction)

Function ▶ Selecting the print direction.

NML ..... The margin is made on the lower position.
REV ..... The margin is made on the upper position.



REV

NML

▶ This function is available on S-size paper.

But printing is invalid on 2 multi-image, PHOTO 3 x 4, CARD .

7. Setting the functions (Memory SW menu)

PRN SPEED (Print Speed)

Function ▶ Selecting the print speed.

NML (Normal) ..... Normal speed
FAST ..... High speed

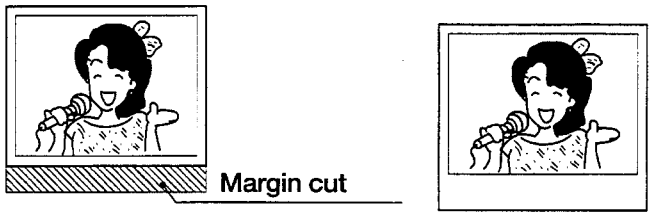
▶ When setting to " FAST " , the color of printing image may be light.

Also, the image cannot be stored during printing.

MARGIN CUT

Function ▶ Cut the print paper so that the upper margin is small.

ON ..... Small margin
OFF ..... Behind the margin



ON OFF

▶ This function is convenient when putting the print on prints on records or non-PVC sleeves for print orchiving. This feature also saves paper.

V POSITION

Function ▶ Adjusting the vertical position of printing image.

Setting area - 40 +40 (Change each 2 lines)

▶ When 2-image printing on L size print paper, the printed image will not be correct depending on memory size. It may be necessary to adjust part of the image in the UP, DOWN, RIGHT or LEFT direction.
V POSITION function is to adjust the position for UP und DOWN direction of the image in memory and to print the image in the normal cutting position.
This function is available in 2multi-image prints and Lsize prints.

ECHO GAMMA ADJ

Function ▶ Change the gamma value of " ECHO " for medical equipment.

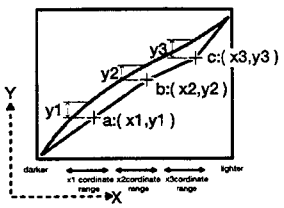
▶ The gamma curve is set for medical equipmemt in MAIN MENU → 4.PRINT GRAD : ECHO . When the set gamma curve cannot be applied, this function is able to set according to connecting device. The set value is applied to the value of ECHO.
The gamma characteristic of printed image can be changed by inputting the value of a, b and c on the gamma curve.

a (cordinates of the x1 point, changed value y1)..... dark part of the image gets
y1 → + : brighter −: darker
b (cordinates of the x2 point, changed value y2)..... the whole image get
y2 → + : brighter −: darker
c (cordinates of the x3 point, changed value y3)...birght part of the image gets
y3 → + : brighter −: darker

• At X, input the location of a point on the curve to be moved to Y direction.
• At Y, input the amount of move.
• All the gamma chracteristic changes by moving the "y" on a, b or c point.
• The setting area of the points (a, b and c) is limited.

Select the item to be chaned by LEFT or RIGHT shift button.
a:(,) ←→ b:(,) ←→ c:(,)
Change the value by UP or DOWN shift button.

a (cordinates of the x1 value, changed value y1)



x: cordinates of the x1 value, y: changed value y1

e.g.

❶ b (x 2 value, y 2 changing value)..... Change the y value of all of the image.

❷ Change the value of a and c.
a : x1=64 y1=0 b : x2=128 y2=0 c : x3=192 y3=0 is the initial setting of "GRAD:ECHO".

❺ SYSTEM System setting 2

PRG ALL INIT (Program All Initial)

▶ All settings of 3 memory programs to store each function is initialized.

ON ..... Each setting fuction is initialized
OFF ..... Not initialized

▶ This function is availabe when selecting "OK" in the " CHANGE : OK/ CANCEL/INIT " of " MEMORY SW MENU " and pressing the SET button.
Once this function is set to "ON" and the source image is displayed,the setting is initialized and the image stored in the memory is cleared even if this function is set to "OFF".

BAUD RATE

Function ▶ Setting the Baud Rate according to connected equipment.

▶ Refer to pages 19-21 .

COMMAND TYPE

Function ▶ Setting the RS-232 Ccommand type.

Select "A" or "B" according to connected equipment.
Normally, set the "COMMAND TYPE" to "A".

▶ Refer to page 20.

REMOTE BUSY

Function ▶ Setting the BUSY signal of remote terminal (REMOTE 1/ REMOTE 2) on the rear panel.

Normally, set the "REMOTE BUSY" to "H".
Select "H" or "L" according to connected equipment.

H (HIGH) ..... The VCP cannot accept the remote input signal when the signal is "HIGH".
L (LOW) ..... The VCP cannot accept the remote input signal when the signal is "LOW".

▶ Refer to page 81.

8. Printing procedures (Special prints)

The following printing is available.

1 MULTI prints SAME or DIFF ..... Pages 66 - 69

■ 2,4, or 16 images can be printed on a sheet.

■ 2-image ■ 4-image ■ 16-image

S-size paper L-size paper S-size paper L-size paper S-size paper L-size paper

2 PHOTO prints PHOTO ..... Pages 70 - 72

■ Photo prints can be made on two types of the sheet in the market and a card size sheet (suited size to stick on a business card.)

■ CARD size (1.5 ×2cm) ■ 3 ×4cm size ■ 5 ×5cm size

S-size paper L-size paper S-size paper L-size paper S-size paper L-size paper

3 Separate prints SEPARATE ..... Pages 72 - 74

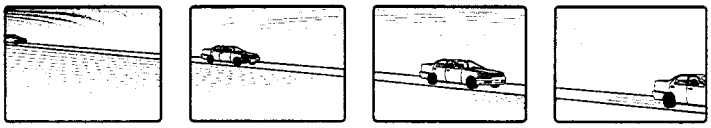
■ A white frame can be inserted between the images when two or more images are printed on a sheet.

■ 2-image ■ 4-image ■ 16-image

S-size paper L-size paper S-size paper L-size paper S-size paper L-size paper

4 Strobe prints STROBE ..... Pages 74- 78

■ With this function, an image is stored in memory repeatedly at set intervals.
In case of multi-image setting, the images are stored in memory in the order of the set number of multi-image.



Example : S size paper, One image strobe memory

○ When "MEM&PRINT" in the KEY SETTING in MEMORY SW MENU is set to ON, the image is printed automatically after memorizing the image (or memorizing the set number of images in MULTI mode).
Refer to pages 77 - 78.

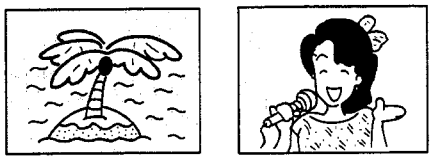
Memory pages

■ The image size to be memorized is 1216 by 1200 dots. The following functions are available on this unit.
The following is an example of S size paper.

■ 2-image prints (MULTI prints)

○ In FRAME mode, 2 images can be memorized on one page.

example : VIDEO FRAME [A B] (Display on the monitor)

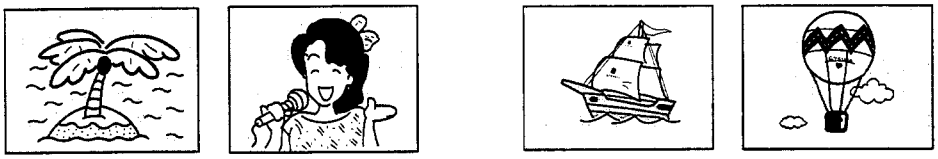


A B

the image A and image B for 1 page (Only in the case of 2-images)

○ In FIELD mode, 4 images can be memorized on 2 pages.

example : VIDEO FIELD [A B C D] (Display on the monitor)



A B C D

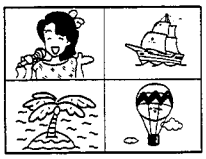
the image A and image B for 1 page (Only in the case of 2-images)

the image C and image D for 1 page (Only in the case of 2-images)

■ 4-image prints (MULTI prints)

○ In FRAME mode, 4 images can be memorized on one page.

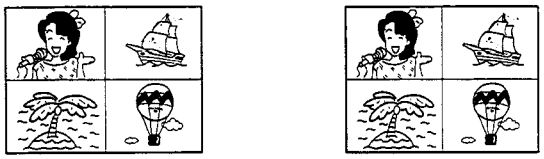
Example : VIDEO FRAME (Display on the monitor)



4 images on 1 page

○ In FIELD mode, 8 images can be memorized on 2 pages.

example : VIDEO FIELD [A B] (Display on the monitor)



A

4 images on 1 page

B

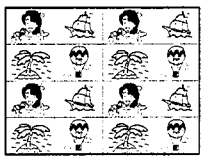
4 images on 1 page

8. Printing Procedures (Special prints)

■ 16-image prints (MULTI prints)

○ In FRAME mode, 16 images can be memorized on 1 page.

example : VIDEO FRAME (Display on the monitor)



16 images on 1 page

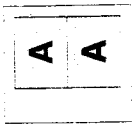
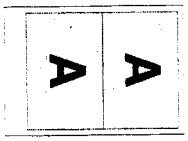
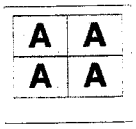
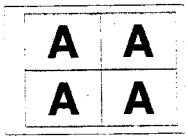
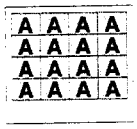
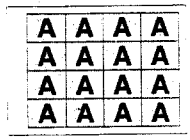
■ Image size and the number of memory pages

No. of images	Number of memory pages	
	FRAME	FIELD
1	2 pages 1024 dot, 1000 dot, 500 dot, 500 dot A 1 page B 1 page	4 pages 1024 dot, 500 dot, 500 dot, 250 dot, 250 dot, 250 dot, 250 dot A 1 page B 1 page C 1 page D 1 page
2	1 page 1024 dot, 1000 dot, 500 dot, 500 dot Only 2 images A and B for 1 page	2 pages 1024 dot, 500 dot, 500 dot, 250 dot, 250 dot, 250 dot, 250 dot Only 2 images A and B for 1 page C and D for 1 page
4	1 page 1024 dot, 512 dot, 512 dot, 1000 dot, 500 dot, 500 dot 1 page	2 pages 1024 dot, 512 dot, 512 dot, 1000 dot, 250 dot, 250 dot, 250 dot, 250 dot A 1 page B 1 page
16	1 page 1024 dot, 256 dot 256 dot 256 dot 256 dot, 1000 dot, 250 dot, 250 dot, 250 dot, 250 dot 1 page	

1 MULTI PRINTS

■ 2, 4 or 16 images can be printed on a sheet.

○ The following prints are available.

Setting of the No. of images	S size prints	L size prints
One image printing		
2		
4		
16		

example : "W" is selected on "SIZE" in 6.SYSTEM. "OFF" is selected on "SEPARATE" in 3.ADDITIONAL.
"A" shows the direction of images.

OPERATION

■ Setting the multi-print menu

Setting the multi-print function

❶ Press the MENU button. Then, Press the DOWN ▼ or UP ▲ shift button to select " 3. ADDITIONAL PUSH [▶] ".

❷ Press the RIGHT ▶ shift button to open "3. ADDITIONAL".

❸ Press the DOWN ▼ or UP ▲ button to select "MULTI : OFF/ON ". Then, press the RIGHT ▶ button to select "ON".

○ "MODE : SAME/DIFF/PHOTO " is displayed on the menu screen.
○ "IMAGES : 2 /4/ 16 " is displayed on the lower line.

❹ Press the DOWN ▼ button to select " MODE : SAME/DIFF/PHOTO ". Then, press the RIGHT ▶ button to select " SAME " or " DIFF ".

○ When " SAME " is selected, a multi-image (2, 4 or 16 images) of the same image can be printed.
○ When " DIFF" is selected, a multi-image (2, 4 or 16 images) of the different images can be printed.

❺ Press the DOWN ▼ shift button to select "IMAGES : 2/4/16". Then press the RIGHT ▶ shift button to select 2, 4 or 16.

○ The muti-image setting is completed.
○ When "2" is selected, 2 images can be stored in memory.
○ When "4" is selected, 4 images can be stored in memory.
○ When "16" is selected, 16 images can be stored in memory.

■ Displaying the image from input signal (source image)

❶ Press the SET ● button.

○ " CHANGE : OK/CANCEL " is selected.
○ When changing the multi-print function, select "CANCEL".

❷ Press the SET ● button.

○ The MAIN MENU is displayed.

❸ Press the SET ● button.

○ "SAVE PRG 1/2/3" is selected.
○ This menu is used to store the setting in any one of 3 programs (1, 2 or 3).

❹ Press the RIGHT ▶ or LEFT ◀ button to select the program number 1, 2 or 3 to store the setting.

○ The setting will be overlaid. In case of keeping the stored program, do not select the program No. in which the setting is stored.

❺ Press the SET ● button.

○ The source image (image from the input signal) is displayed.

■ Storing images in memory

❶ Press the DISPLAY button to display the set conditions.

❷ Press the FIELD/FRAME button on the remote control to select FIELD or FRAME.

❸ Press the MONITOR button and select the source image ("LIVE" is displayed on the monitor.) to display the image to be stored in memory.

❹ Press the MEMORY button to store the image to be printed.

- ○ When "MODE is set to "DIFF" and "IMAGES" to "4" or "16", store the set number of images in memory by repeating "displaying the image to be stored in memory on the monitor" → "pressing the MEMORY button" →....
  When an image is stored in memory, the source image ("LIVE" is displayed on the monitor.) is displayed approx. 1 second after the memorized image is displayed.
- ○ When "MODE" is set to "DIFF" and "IMAGES" to "2":
  FRAME .... One image can be stored in memory page A and B.
  FIELD ..... One image can be stored in memory page A and B, or C and D.
- ○ When "MODE" is set to "DIFF" and "IMAGES" to "4":
  FRAME .... [A B] and [ABCD] are not displayed on the screen.
  4 images can be stored in only 1 memory page.
  FIELD ..... 4 images can be stored in memory page A or B.
- ○ When "MODE" is set to "DIFF" and "IMAGES" to "16":
  FRAME .... [A B] and [ABCD] are not displayed on the screen.
  16 images can be stored in only 1 memory page.
  FIELD ..... [A B] and [ABCD] are not displayed on the screen.
  16 images can be stored in only 1 memory page.
- ○ When "MODE" is set to "SAME" :
  FRAME .... An image can be stored in memory page A or B only once.
  FIELD ..... An image can be stored in A, B, C or D only once.

Storing an image in any position

When "MODE" is set to "DIFF" and "IMAGES" to 4 or 6

❶ Press the DISPLAY button to display the set conditions.

❷ Press the MONITOR button. Select source image ("LIVE" is displayed on the monitor.) to display the image to be stored in memory.

❸ Press the MONITOR button to display the memorized image. ("MEMORY" is displayed on the screen.)

- ○ When "IMAGES" is set to 4 and FIELD mode is selected, press the MEMORY PAGE button to select the memory page.

❹ Press the DISPLAY button to display the set conditions.

- ○ The memory page number where the image can be stored is indicated.
  The position number where the image can be stored is indicated in green.

❺ Press the shift buttons to determine the position to store the image.

- ○ The image is stored in the selected position.

❻ Press the MEMORY button to store the image to be printed.

8. Printing Procedures (Special prints)

When "MODE" is set to "SAME", or "MODE" is set to "DIFF" and "IMAGES" to 2

○ When "MODE" is set to "SAME", or "MODE : DIFF" and "IMAGES" is set to 2, only one image is displayed on the monitor screen.

❶ Press the DISPLAY button to display the set conditions.
❷ Press the MONITOR button. Select source image ("LIVE" is displayed on the monitor.) to display the image to be stored in memory.
❸ Press the MEMORY PAGE button to select the memory page to store the image.
- ○ The selected memory page is indicated in green in [A B] or [A B C D].
- ○ When the MEMORY PAGE button is pressed, the position to store the image is switched. The switched position is indicated in green in [A B] or [A B C D].
- ○ Select the previous character of the page where the image is to be stored.
  (Select "C" to store the image in page B. The initial setting is "PAGE INC : ON".)
- ○ When "MODE" is set to "SAME" :
  FRAME ..... Select [A] or [B]
  FIELD ..... Select [A] [B] [C] or [D]
- ○ When "MODE" is set to "DIFF" and "IMAGES" to "2" :
  FRAME ..... Select [A] or [B]
  FIELD ..... Select [A] or [B] , or [C] or [D]

❹ Press the MEMORY button to store the image in memory.
- ○ When pressing the MONITOR button, selecting MEMORY (memorized image) and then pressing the MEMORY PAGE button, the image stored in memory can be checked.

■ Printing the images

❶ Press the MONITOR button to display the memorized image. ("MEMORY" is displayed on the monitor.).
- ○ In the following cases, select the memorized image to be printed by pressing the MEMORY PAGE button.
  1. "MODE" is set to "DIFF" and "IMAGES" to "2"
  2. "IMAGES" is set to "4" and FIELD mode is selected.
  3. "MODE" is set to "SAME".
- ○ The selected memory page is indicated in green in [A B] or [A B C D].
- ○ When selecting any one character in [A B] or [C D], [A B] or [C D] is selected.

❷ Press the PRINT button.
- ○ The memorized multi-image is printed.

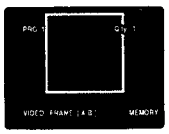
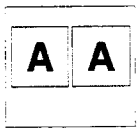
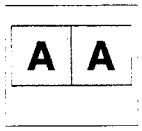
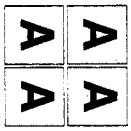
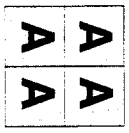
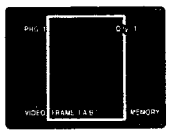
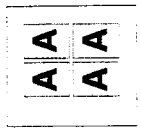
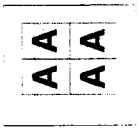
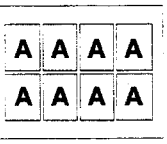
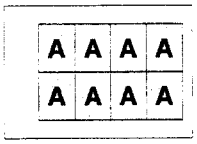
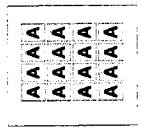
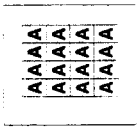
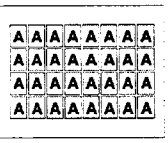
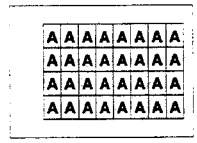
Note :
- ○ When 2 images are printed on a S size paper, comments may not be fully printed.
- ○ When 2 images are printed on a L size paper, the images may not be fully printed.
  In this case, adjust the position of the images by "V POSITION" of "4. PRINT SETTING" of "4. PRINT SET" in memory SW menu.

2 PHOTO PRINTS

■ PHOTO print is a function to print the images on the photo size (3x4cm, 5x5cm) and card size (2x1.5cm).

○ CARD size print is suited to stick on a business card.

○ The following prints are available.

Setting the No. of prints		Memorized image on the monitor	S size prints		L size prints	
			Separate ON	Separate OFF	Separate ON	Separate OFF
PHOTO	5 X 5					
	3 X 4					
	CARD					

example : W" is selected on "SIZE" in 6.SYSTEM

"A" shows the direction of images.

■ OPERATION

■ Setting PHOTO print menu

Setting PHOTO function

❶ Press the MENU button. Then press the DOWN ▼ or UP ▲ button to select " 3. ADDITIONAL PUSH [▶] ".

❷ Press the RIGHT ▶ button to select "3. ADDITIONAL".

❸ Press the DOWN ▼ or UP ▲ button to select "MULTI : OFF/ON ". Then press the RIGHT ▶ button to select " ON ".

○ " MODE : SAME/DIFF/PHOTO " is displayed on the menu screen.

○ " IMAGES : 2 /4/ 16 " is displayed on the lower line.

❹ Press the DOWN ▼ or UP ▲ button to select " MODE : SAME/DIFF/PHOTO ". Then, press the RIGHT ▶ button to select " PHOTO ".

○ "IMAGES : CARD / 3*4 /5*5 " is displayed on the menu screen.

8. Printing Procedures (Special prints)

■ Selecting the size

❶ Press the DOWN ▼ button to select " IMAGES : CARD / 3*4 /5*5 " menu.

❷ Press the RIGHT ▶ button to select " CARD " , " 3*4 " or " 5*5 ".

■ Displaying the image from input signal (source image)

❶ Press the SET ● button.

○ " CHANGE : OK/CANCEL " is selected.
○ When changing the PHOTO print setting, select "CANCEL".

❷ Press the SET ● button.

○ The MAIN MENU is displayed.

❸ Press the SET ● button.

○ "SAVE PRG 1/2/3" is selected.
○ This menu is used to store the setting in any one of 3 programs (1, 2 or 3).

❹ Press the RIGHT ▶ or LEFT ◀ button to select the program number 1, 2 or 3 to store the setting.

○ The setting will be overlaid. In case of keeping the stored program, do not select the program No. in which the setting is stored.

❺ Press the SET ● button.

○The source image (image from the input signal) is displayed.

■ Storing images in memory

❶ Press the DISPLAY button to display the set conditions.

❷ Press the FIELD/FRAME button on the remote control to select FIELD or FRAME.

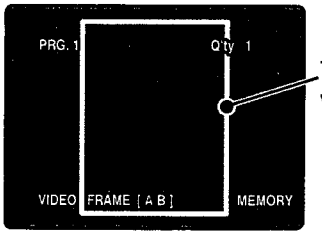
❸ Press the MONITOR button and select the trough image ("LIVE" is displayed on the monitor.) to display the image to be stored in memory.

❹ Press the MEMORY PAGE button to select the memory page to store the image.
○ The selected memory page is indicated in green in [A B] or [A B C D].
○ When the MEMORY PAGE button is pressed, the position to store the image is switched. The switched position is indicated in green in [A B] or [A B C D].
○ Select the previous character of the page where the image is to be stored.
(Select "B" to store the image in "A". The initial setting is "PAGE INC : ON".)

❺ Press the MEMORY button to store the image in memory.

■ Printing the images

❶ Press the MONITOR button to display the memorized image. ("MEMORY" is displayed on the monitor.)
- ○ A white frame is indicated on the displayed image.
- ○ The image within the white frame is photo-printed.



The white frame moves with the SHIFT buttons.

example : When "3x4" or "CARD is selected.

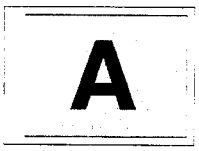
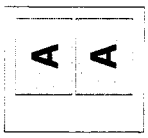
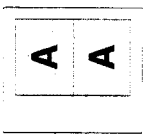
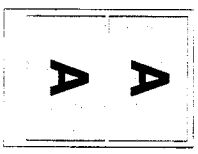
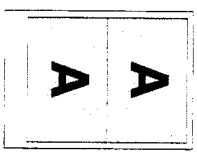
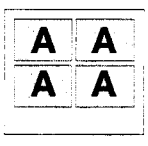
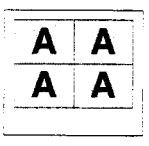
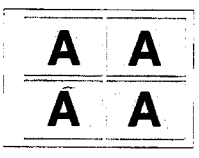
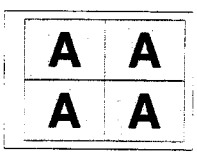
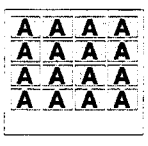
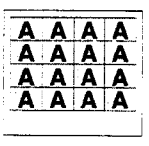
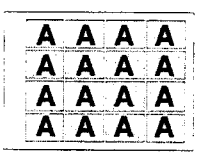
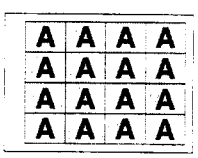
❷ Press the MEMORY PAGE button to select the memory page to print.
- ○ The selected memory page is indicated in green in [A B] or [A B C D].

❸ Press the ▲, ▼, ◀, ▶ buttons to move the white frame to determine the print area.

❸ Press the PRINT button.
- ○ The set PHOTO-image is printed.

3 SEPARATE PRINT

■ A white frame can be inserted between two or more images.
- ○ The following prints are available.

Setting of the No. of prints	S size prints		L size prints	
	Separate ON	Separate OFF	Separate ON	Separate OFF
1				
2				
4				
16				

example : "W" is selected on "SIZE" in 6.SYSTEM
"A" shows the direction of images.

8. Printing Procedures (Special prints)

OPERATION

Setting the multi-print and photo-print menus

Setting multi-print and photo-print functions

❶ Press the MENU button. Then, press the UP ▲ or DOWN ▼ shift button to select " 3. ADDITIONAL PUSH [▶] ".

❷ Press the RIGHT ▶ shift button to select "3. ADDITIONAL".

❸ Press the DOWN ▼ shift button to select " MULTI : OFF/ON". Then press the RIGHT ▶ shift button to select "ON " .

- ○ " MODE : SAME/DIFF/PHOTO " is displayed on the menu screen.
- ○ " IMAGES : 2 /4/ 16 " is displayed on the lower line.

❹ Set the multi-image type (2, 4 or 16) or photo print size.

- ○ Set "MODE : SAME/DIFF/PHOTO" and "IMAGES : 2/4/16 or CARD/3*4/5*5" menus.
- ○ Refer to 1 MULTI PRINT and 2 PHOTO PRINT for the multi-image type.

Setting the SEPARATE function

❹ Press the DOWN ▼ shift button to select "SEPARATE : OFF/ON" .

❺ Press the RIGHT ▶ shift button to select "ON".

Displaying the source image (image from the input signal)

❶ Press the SET (SET) button.

- ○ " CHANGE : OK/CANCEL " is selected.
- ○ When changing the setting, select "CANCEL".

❷ Press the SET (SET) button.

- ○ The MAIN MENU is displayed.

❹ Press the SET (SET) button.

- ○ "SAVE PRG 1/2/3" is selected.
- ○ This menu is used to store the setting in any one of 3 programs (1, 2 or 3).

❹ Press the RIGHT ▶ or LEFT ◀ shift button to select the program number 1, 2 or 3 to store the setting.

- ○ The setting will be overlaid. In case of keeping the stored program, do not select the program No. in which the setting is stored.

❺ Press the SET button.

○ The source image (image from the input signal) is displayed.

■ Storing images in memory / Printing the images

❶ Store the images to be printed in memory.
○ Refer to 1 MULTI PRINT or 2 PHOTO PRINT for storing images in memory.

❷ Press the PRINT button.

○ The set SEPARATE images are printed.

Note :
○ The distance between images in multi-print is different between on the monitor and the printed image.
○ The image size changes according to the"SIZE" in "6. SYSTEM MENU".
When the images of different size are memorized in one page, the margin is determined according to the largest width of the image in the page.

4 STROBE PRINTS

■ OPERATION

■ Selecting FIELD or FRAME

■ Setting STROBE function

❶ Press the MENU button. Then press the UP or DOWN button to select " 3. ADDITIONAL PUSH [▶] ".

❷ Press the RIGHT button to select "3. ADDITIONAL".

❸ Press the UP button to select "STROBE : OFF".

❹ Press the RIGHT button to select " STROBE : 1/13 .... 1hr" .

○ Each time the RIGHT or LEFT button is pressed, the interval of image memorization is switched.

○ The interval of memorization can be set as follows:
○ 1/13 sec · 1/5 sec · 1/2.5 sec · 1 sec · 2 sec · 5sec · 10 sec · 30 sec ..... every second
○ 1 min · 2 min · 5min · 10min · 30 min ..... every minute
○ 1hr ..... every hour

○ Images can not be memorized during printing while images are fully stored in memory page.
When the interval of the strobe time is a value lower than the automatic capture and print time interval, the printer will not be able to the image because print time is longer than strobe time. Adjust strobe time by selecting a higher value.
(Example : interval of 10 seconds or less in FIELD mode and interval of 30 seconds or less in FRAME mode)

8. Printing Procedures (Special prints)

■ Setting 1-image/multi-image memory

■ When memorizing 1 image in STROBE mode

This setting is used to memorize 1 image in memory page [A B] (FRAME) or [A B C D] (FIELD).

❶ Set the mode to 1-image.
Select "OFF" in "MULTI : OFF" in "3. ADDITIONAL".

❷ Set the page increment function to ON.
Set the "PAGE INC" to ON in "6. SYSTEM". (The initial setting is "ON".)

- ○ In FRAME mode, the image is memorized in the stored in memory page in order of page [A] → page [B]→ page [A]....
- ○ To memorize images in page [A] and [B] only once, (not memorizing images repeatedly) set "MEM&STOP" to"ON" in "2. KEY SET" from MEMORY SW MENU.
- ○ When "PAGE INC" is set to OFF, images are memorized in page [A] repeatedly.

■ When memorizing multi- image (2, 4 or 16 images) in STROBE mode

This setting is used to memorize multi-image in order in one memory page.

❶ Set the mode to MULTI.
Select "ON" in "MULTI " in "3. ADDITIONAL".

❷ Set the number of images and print size.
Set "MODE : SAME/DIFF/PHOTO" and "IMAGES : 2/4/16" in "3. ADDITIONAL".

- ○ Refer to ■ MULTI PRINT for setting the number of multi-image.
- ○ When "DIFF" is selected in "MODE" and 2, 4 or 16 is selected in "IMAGES", 2, 4 or 16 images are stored in memory in order at the set interval.
  When the images are fully stored in memory page, the strobe memorization stops.
- ○ When "MODE" is set to "SAME" or "PHOTO", the memorization status is as same as one image memorization.

■ Displaying the source image (image from the input signal)

❶ Press the SET button.

○ " CHANGE : OK/CANCEL " is selected.
○ When changing the setting, select "CANCEL".

❷ Press the SET button.

○ The MAIN MENU is displayed.

❸ Press the SET button.

○ "SAVE PRG 1/2/3" is selected.
○ This menu is used to store the setting in any one of 3 programs (1, 2 or 3).

❹ Press the RIGHT or LEFT button to select the program number 1, 2 or 3 to store the setting.

○ The setting will be overlaid. In case of keeping the stored program, do not select the program No. in which the setting is stored.

❺ Press the SET button.

○ The source image (image from the input signal) is displayed.

■ Storing images in memory

❶ Press the DISPLAY button to display the set conditions.

❷ Press the FIELD/FRAME button on the remote control to select FIELD or FRAME.

❸ Press the MONITOR button and select the source image ("LIVE" is displayed on the monitor.) to display the image to be stored in memory.

❹ Press the MEMORY button.
○ The set strobe memory starts.
○ When the strobe memory is set on multi-image, the position of image memory is automatically set.
○ To store the images in strobe memory again while "MEM&STOP" is set to ON at multi-image and strobe memory setting, press the CLEAR button or press the MEMORY button after completing printing.
The strobe images are stored in the 2nd page.
○ When "MODE" is set to "SAME", the images are stored in [A B] or [A B C D] repeatedly.
When "MODE" is set to "DIFF", "IMAGES" to"4" and FIELD mode, 4 images are stored in [A] or [B] and then image memorization stops.
Images can be stored in the other memory page by pressing the MEMORY PAGE button.
When "MODE" is set to "DIFF" and "IMAGES" to "16", [A B] and [A B C D] are not indicated. The images can be stored in one memory page.
After storing 16 images in memory, image memorization stops.
When pressing the MEMORY button again, images are stored in memory again.

8. Printing Procedures (Special prints)

■ Interrupting strobe memory

○ When any buttons on the remote control except MEMORY button is pressed, the strobe memory is interrupted.

■ Pressing the PRINT button

To print the images stored in the strobe memory, follow the following procedures after interrupting the strobe memorization.

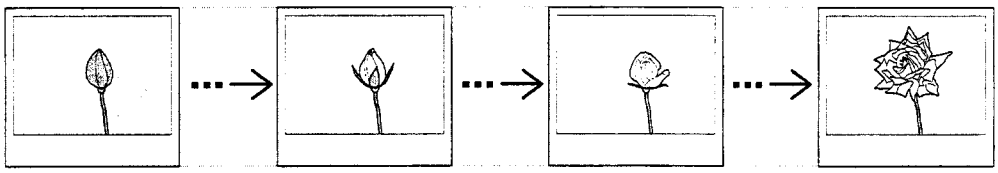
❶ Display the desired image on the monitor.

❷ Press the PRINT button.

○ The image stored in memory is printed.

Setting the automatic interval printing

By combining STROBE printing and MEMORY printing, automatic interval printing is available. This is the function where the images are stored in memory at the set interval and printed repeatedly.



■ Automatic interval prints (1 image)

This is the function where one image is stored in memory page ([A or B] in FRAME mode or [A, B, C or D] in FIELD mode) in order at set interval and printed repeatedly.

❶ Set 1 image mode.
Set "MULTI : OFF/ON" to "OFF" in "3. ADDITIONAL" from the MAIN MENU.

❷ Set the PAGE INC to "ON".
Set the "PAGE INC : ON/OFF" to "ON" in "6. SYSTEM" from the MAIN MENU.

❸ Set the "MEM&PRINT" to "ON".
Set the "MEM&PRINT : OFF/ON" to "ON" in "2. KEY SETTING" from the MEMORY SW MENU.

■ Automatic interval prints (multi-image)

This is the function where set number of multi-images are stored in memory page ([A and B] in FRAME mode or [A, B, C and D] in FIELD mode) in order at set interval and printed repeatedly.

❶ Set multi-image mode.
Set "MULTI : OFF/ON" to "ON" in "3. ADDITIONAL" from the MAIN MENU.

❷ Set the number of images in a memory page and print size
Set "MODE : SAME/DIFF/PHOTO" and "IMAGES : 2/4/16" in "3. ADDITIONAL".

○ When "MODE" is set to "SAME" or "PHOTO", the image is stored and printed as the same status as 1-image memory.

○ When "MODE" is set to "DIFF" and "IMAGES" to 2, 4, or 16, 2, 4, or 16 images are stored in a memory page at the set interval.

○ The strobe memory does not function while the images are being printed. After completing printing, memorizing and printing images starts again.

❸ Set the "PAGE INC" to "ON".
Set the "PAGE INC : ON/OFF" to "ON" in "6. SYSTEM" from the MAIN MENU.
❹ Set the "MEM&PRINT" to "ON".
Set the "MEM&PRINT : OFF/ON" to "ON" in "2. KEY SETTING" from the MEMORY SW MENU.

Displaying the source image (image from the input signal)

❶ Press the SET button.

○ " CHANGE : OK/CANCEL " is selected.
○ When changing the setting, select "CANCEL"

❷ Press the SET button.

○ The MAIN MENU is displayed.

❸ Press the SET button.

○ "SAVE PRG 1/2/3" is selected.
○ This menu is used to store the setting in any one of 3 programs (1, 2 or 3).

❹ Press the RIGHT or LEFT button to select the program number 1, 2 or 3 to store the setting.

○ The setting will be overlaid. In case of keeping the stored program, do not select the program No. in which the setting is stored.

❺ Press the SET button.

○ The source image (image from the input signal) is displayed.

Pressing the MEMORY button

❶ Display the desired image for the automatic interval printing on the monitor.

❷ Press the MEMORY button.
○ The set automatic interval printing starts.

■ Interrupting automatic interval prints

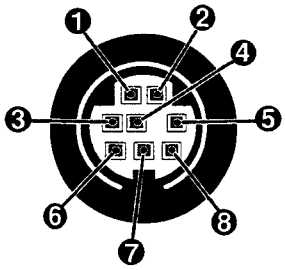
○ When the STOP button on the remote control is pressed, the automatic interval print is interrupted.

Note :
○ "MEM&STOP" and "MEM&PRINT" function after the last image of the multi-image is stored in memory.
○ Even if the number of prints is set to more than 1 at strobe print, STROBE is applied to the first page only.

8. Printing Procedures (Special prints)

External REMOTE 2 terminal on the rear panel

The images can be stored in memory and printed by sending the remote signal through the external remote terminal on the rear panel.



Pin No.

○ Make out the necessary circuit to use this function by referring to the following.

■ External remote terminal Signal allocation Connector MINI DIN8PIN

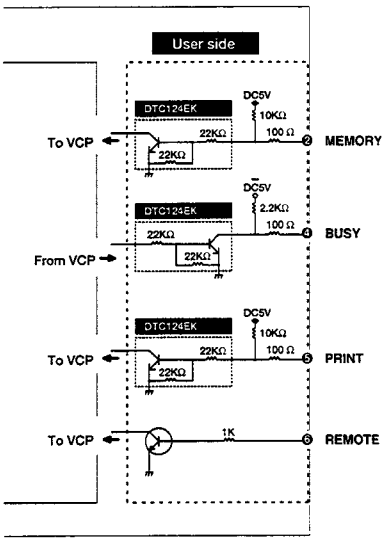
Pin No.	Function	Description
❶	Ground	Earth
❷	MEMORY	Memory: When the signal becomes "LOW" from "HIGH", the image is stored in memory. (When the signal has been "LOW" for 60msec. or more, the image is stored in memory. When the signal has been "LOW" for 60 msec. or more after setting to "HIGH" for 60msec. or more, the image is stored in memory repeatedly.)
❸	Unused	
❹	BUSY	" HIGH " : The VCP cannot accept the remote signal. " LOW " : The VCP can accept the remote signal. The signal becomes "HIGH" in the following cases; (1) During initialization after the VCP has been switched on (2) For about 1 sec. after the INPUT SELECT switch has been set (3) During displaying the menu screen (4) When the image cannot be stored in memory
❺	PRINT	PRINT :When the signal becomes "LOW" from "HIGH", the image stored in the memory is printed. (When the signal has been "LOW" for 60 msec. or more, the image is printed. When the signal has been "LOW" for 60 msec. or more after setting to "HIGH" for 60 msec. or more, the image is printed repeatedly.)
❻	REMOTE	The same functions as the remote control can be controlled. *
❼	Unused	
❽	DC3V	Power supply for the remote control DC 1mA MAX

* Refer to page 80 for this function.

○ When the signal from BUSY terminal is received with TTL level, keep the following.
$|I_{OL}|$ =2mA or less, $|I_{OH}|$ =1mA or less
$|I_{OL}|$ shows the current flowing into the unit at Low output, $|I_{OH}|$ shows the current flowing out of the unit at High output.

■ Circuit inside the VCP

▼ VCP



Pin No. ⑥ REMOTE terminal

By sending the following remote control codes from Pin No. 6, the same functions as the wired remote control (accessory) can be controlled.

Code	Function	Code	Function
01	LEFT SHIFT button	02	RIGHT SHIFT button
03	DOWN SHIFT button	04	UP SHIFT button
08	PRINT Q'ty button (increase)	09	
0A*	MENU button	0B*	CLEAR button
0C	PRINT Q'ty button(decrease)	0D	
0E*	SET button	0F*	STOP button
12*	PROG. (Program) button	13*	PRINT button
15*	FIELD/FRAME button	16*	COLOR ADJUST button
17*	MEMORY button	18*	DISPLAY button
1C*	MEMORY PAGE button	1D*	MONITOR button

In case of the codes with * mark, 5 words are sent.

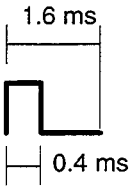
8. Printing Procedures (Special prints)

TIMING CHART

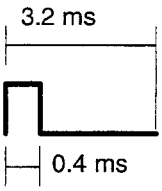
Input signal level : TTL

Input timing : 1 word 38.4 ms

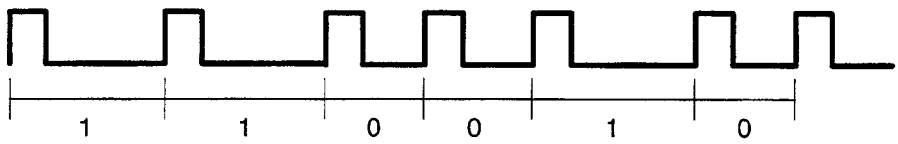
Input timing : Code : "0"



Input timing : Code : "1"

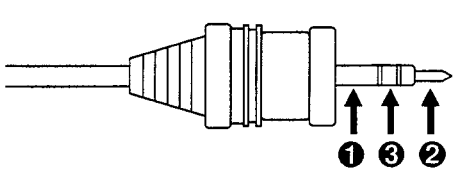


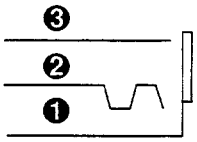
Example : print code = 13=010011



External REMOTE 1 terminal on the rear panel

- **The pin number on the positive pin is shown below.**





■ External remote terminal Signal allocation Connector REMOTE 1

Pin No.	Function	Description
❶	Ground	Earth
❷	MEMORY	Memory: When the signal becomes "LOW" from "HIGH", the image is stored in memory. (When the signal has been "LOW" for 60msec. or more, the image is stored in memory.
❸	BUSY	" HIGH " : The VCP cannot accept the remote signal. " LOW " : The VCP can accept the remote signal. The signal becomes "HIGH" in the following cases; (1) During initialization after the VCP has been switched on (2) For about 1 sec. after the INPUT SELECT switch has been set (3) During displaying the menu screen (4) When the image cannot be stored in memory

9. Troubleshooting

Error messages and countermeasures

■ If for some reason printing is not possible or error occurs during printing, the error message will be displayed on the monitor screen or LCD.
In this case, follow the procedure described below.

Error messages	Causes	Countermeasures
DOOR OPEN	The printing unit is not inserted correctly.	Insert the printing unit until it is locked in the unit.
PAPER EMPTY	Paper is not set. Paper is not set correctly. Paper runs out during printing. *Note : 1	Set the print paper correctly. Refer to pages 7 - 8.
SHEET CARTRIDGE EMPTY	The ink-cassette is not installed.	Install the ink-cassette. Refer to page 8.
OVER HEAT	The temperature inside the unit becomes too high.	Wait until the message goes off. *Note : 2
SHEET END	The ink-sheet is used up.	Replace the ink-sheet with a new one. Refer to page 8.
PAPER JAM J11 PAPER JAM J12 PAPER JAM J13 PAPER JAM J14	Paper jamming occurs.	Refer to "Overcoming paper jams".
TECHNICAL ERROR J22 TECHNICAL ERROR J23 TECHNICAL ERROR J24	Other defects.	Press the MEMORY button for more 1 second while pressing the MONITOR button. *Note : 3 If the status is not improved by carring out this measure, consult your dealer.

*Note : 1 In case of L-size printing, the image is not printed completely.

*Note : 2 When setting the continuous printing, the continuous printing is carried out after the error message goes off.

*Note : 3 This is an operation for initialization. Make sure to press the MONITOR button first. If the MEMORY button is pressed first, a new image will be stored in memory erasing any previously stored image.

9. Troubleshooting

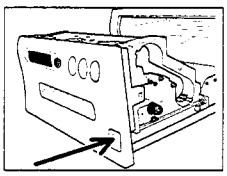
Other messages

MECHA INITIALIZE REQUEST	Indicated when the power is turned on after turning off during printing. Press the MEMORY button for more than one second while pressing the MONITOR button. *Note : 3
MECHA INITIALIZE	Indicated during initializing.
PRINT STOP	In the case of pressing the STOP button on the remote control during printing, this unit is initialized. This message is indicated during initializing.

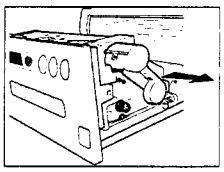
***Note : 3** This is an operation for initialization. Make sure to press the MONITOR button first. If the MEMORY button is pressed first, a new image will be stored in memory erasing any previously stored image.

Overcoming paper jams

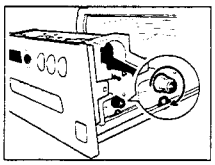
❶ Press the OPEN button to pull out the printing unit.



❷ Remove the ink cassette.



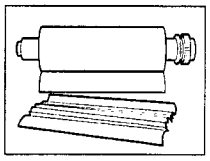
❸ Turn the knob on the right side of the printing unit clockwise.



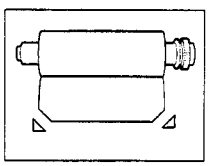
○ Roll up the print paper completely.

❹ Remove the print paper.

❺ Cut the defective part of print paper with scissors.



❻ Cut both edges of the print paper.



❼ Install the print paper. (Refer to pages 7 - 8.)

Before calling for service

Symptom	Check and Remedy
■ No power	▶ Is the power cord plug disconnected from the outlet? → Connect the power cord plug to the outlet firmly. ▶ After turning the power off, wait for approx. 2 minutes. Then turn the power ON.
■ No image appears on the monitor	▶ Are the sync.polarity of the monitor (SYNC : NEGA POSI), the output level of the sync.signal (OUTPUT SYNC RGB) and the RGB output sync. signal (RGB OUT) set correctly? → Check the current setting. Refer to pages 14-21. ▶ Are the video signal and sync. signal inputted to this unit? → Check the connection. Refer to pages 14-21. ▶ Is the input signal on the menu screen (INPUT: VIDEO, S-VIDEO, RGB) selected correctly? → Check the current setting. Refer to pages 29-30. ▶ Is the image stored in memory displayed on the monitor screen? → Press the MONITOR button to display the source image (LIVE).
■ The images on the monitor screen vibrates when characters are indicated on the monitor screen or "LIVE SEL" is set to "DIG". Refer to page 49.	▶ Are the sync.polarity of the monitor (SYNC : NEGA POSI), the output level of the sync.signal (OUTPUT SYNC RGB) and the RGB output sync. signal (RGB OUT) set correctly? → Check the current setting. Refer to pages 14-21.
■ The image is not stored in memory.	▶ Are the images being printed with full memorized memory page? → Press the CLEAR button on the remote control after printing. Then, store the image in the memory again. ▶ Is the memory full in the status of "PAGE INC: OFF" or "PRINT CLR :OFF"? → Store the image in the memory after pressing the CLEAR button on the remote control. (According to the setting conditions, the image can be stored in the memory by setting "PAGE INC" to "ON", "PRINT&CLR" to "ON" or pressing the PRINT button.)
■ The image is not printed.	▶ Is the image stored in memory? → Confirm that the image is stored in memory. ▶ Is the print paper or ink sheet used up? → Check the status. ▶ Is the printing unit set correctly? → Set the printing unit correctly.

9. Troubleshooting

Symptom	Check and Remedy
■ The stored image in the memory cannot be enlarged to fill the maximum print area.	▶ Is the SMALL size ink-sheet installed when selecting "S" in "MODE : S/L"? Or is the LARGE size ink-sheet installed when selecting "L" in "MODE : S/L"? → Check the current setting. Refer to pages 31 - 32. ▶ Is the paper size set to "N" in the size setting in SYSTEM menu? → Set the size to "M" or "W". Refer to page 49. ▶ Is the S size image printed on the L size paper? → Check the current setting. Refer to pages 31 - 32. ▶ Is the print area set correctly in the USER SIZE ADJ? → Check the setting of the print area. Refer to pages 50 - 51.
■ The color or picture quality is different between the memorized image and the printed image.	▶ Is the color of the image stored in the memory adjusted? → Adjust the color of the image stored in the memory with the image adjustment display (COLOR ADJ). Refer to pages 43 - 44.
■ The image on the monitor screen printed paper is not colored correctly. (When the VIDEO signal without color burst signal is inputted to the unit, the image on the monitor screen or printed image becomes monochrome or rainbow-like colored image.)	▶ Is the DCF set to "OFF"? → Set the DCF to "OFF". Refer to page 45.
■ The color or picture quality is different between the image on the monitor screen and the printed image. (When the color and picture quality are same between the image stored in the memory and the printed image.)	▶ Is the image on the monitor screen adjusted? → Adjust the image on the monitor screen with "MON R-SUB" and "MON B-SUB" in the SIGNAL ADJ menu in the signal setting display. Refer to page 60.
■ The set comments do not appear on the print paper.	▶ Is the COMMENT set to "OFF"? → Set the COMMENT to "ON". Refer to page 48. ▶ Is the COMMENT inputted? → Input the COMMENT on the menu. Refer to page 54.
■ Wired remote control cannot be operated.	▶ Is the plug of the remote control disconnected from its terminal on the unit? → Connect the plug of the remote control to the REMOTE terminal on the unit. ▶ Is the wired remote control for this unit (accessory) used? → Use the remote control for this unit. ▶ Is this unit operated through RS-232C interface? → Set "KEY MASK" to "OFF" through RS-232C interface.

10. Options

The following types of ink sheets and print papers are sold separately.

Ink sheet

Product name	Ink sheet size	No. of prints	Usage
PK700S	S size	200	For 3 color use
PK700L	L size	125	For 3 color use

Print paper

Product name	Ink sheet size	No. of prints	Usage
CK700	For S and L size	S size : Approx. 200 L size : Approx. 125	For 3 color use

Ink sheet and Ink cassette

Product name	Ink sheet size	No. of prints	Usage
PKC700S	S size	200	For 3 color use
PKC700L	L size	125	For 3 color use

11. Specifications

Class	Colour Video Copy Processor		
Model	CP700E		
Printing method	Sublimation Dye Thermal		
	3 colour faces progressive printing (yellow, magenta and cyan)		
Print quality	Dot resolution max.1216 × 600 dots		
	Number of grades 256 for each color		
Printing time	Approx.38 sec./ sheet (L size high speed mode)		
	Approx.51 sec./ sheet (L size standard speed mode)		
	Approx.22 sec./ sheet (S size high speed mode)		
	Approx.29 sec./ sheet (S size standard speed mode)		
Ink sheet	Special cartridge method		
Print paper	Special roll paper L size 162 × 110 mm		
	Printing area	Wide mode	130 × 98 mm
		Middle mode	123 × 92 mm
		Narrow mode	120 ×90 mm
	Special roll paper S size 110 × 107 mm		
	Printing area	Wide mode	100 × 75 mm
		Middle mode	94 ×70 mm
		Narrow mode	92 ×69 mm
Supply method	Automatic		
Input terminal	RGB analog (4 BNC type connectors)		
	Composite video (1 BNC type connectors)		
	S-VIDEO (1 S-VIDEO terminal)		
Output terminal	RGB analog (4 BNC type connectors)		
	Composite video (1 BNC type connectors)		
	S-VIDEO (1 S-VIDEO terminal)		
Input/ Output terminal	RS-232C interface (D-SUB 25 pin)		
	Remote terminal (Mini DIN 8 pin/ Stereo jack)		
Input frequency	H frequency 15.625 kHz		
	V frequency 50 Hz		
Power supply	AC 220-240V, 50Hz		
Power consumption	1.3A during printing		
Installation conditions	Temperature: 5° C- 40° C Humidity: 20 -80 % (no dewing)		
	Operation altitude : Horizontal ±5°		
Outside dimensions	280 (W) × 150 (H) × 399(D) mm		
Weight	14.5 kg		

■ Design and specifications are subject to change without notice.

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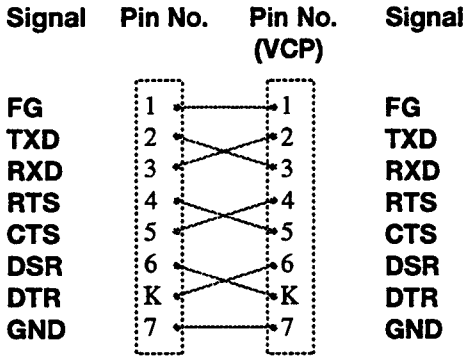
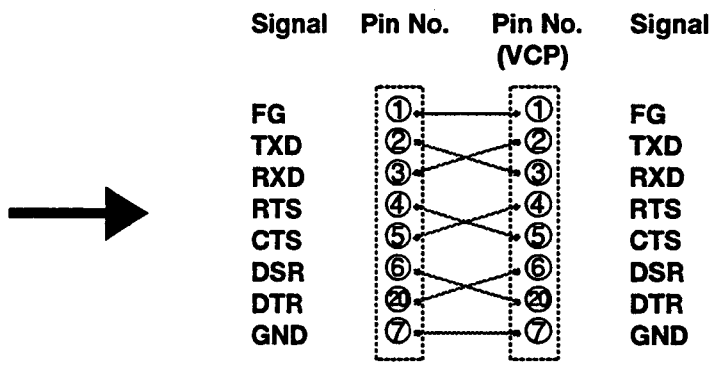
• The pin connection shown on page 21 is misprinted. The illustration on right is correct.



Cross-over cable



Cross-over cable

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